No. 88-

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IN THE

Supreme Court of the United States

OCTOBER TERM, 1988

ARCHER-DANIELS-MIDLAND COMPANY and
NABISCO BRANDS, INC.,
Petitioners,

v.

UNITED STATES OF AMERICA,
Respondent.

PETITION FOR A WRIT OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE EIGHTH CIRCUIT

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April 24, 1989

QUESTION PRESENTED

Whether a price differential between two interchangeable products places them in entirely separate "relevant product markets" under the antitrust laws if the price of one product has been supported from time to time by a government program, even though the same price differential persists with or without such program, and even though the two products would otherwise be in the same market for antitrust purposes because of their functional interchangeability, cross-elasticity of demand, and high degree of price correlation.

RULE 28.1 LIST

For Petitioner Archer-Daniels-Midland Company:

Parent: none

Subsidiaries (other than wholly-owned subsidiaries):

ANDAC, Inc.
Alfred G. Toepfer International

Affiliates:

Golden Peanut Company, a Georgia partnership

For Petitioner Nabisco Brands, Inc.:

Parent: RJR Nabisco, Inc.

Other Parents of Parent:

RJR Acquisition Corporation
RJR Holdings Capital Corp.
RJR Holdings Group, Inc.
RJR Holdings Corp.

Subsidiaries and Affiliates (other than wholly-owned):

Abel's Industries, Ltd. (New Zealand)
ESPN, Inc.
Nabisco/Cetus Food Biotechnology Research Partnership
Ohlmeyer Communications Companies
Britannia Industries Ltd. (India)
Compania Nacional de Galletas Nabisco La Favorita C.A. (Venezuela)
English Biscuit Manufacturers Limited (Pakistan)
Gelatinas Ecuatorianas S.A. (Ecuador)
Grupo Gamesa S.A. (Mexico)
Industrias Nabisco Cristal, S.A. (Nicaragua)
Kan Biscuits Company Limited (Nigeria)
Mahachai Holding Company, Ltd. (Thailand)
Nabisco (Thailand), Ltd.

Sociedada Brasileira Beneficiadora de Cha Ltda. (Brazil)
Sodibel Antilles S.A. (France)
W. & R. Jacob PLC (Ireland)
West Indies Yeast Company Ltd. (Jamaica)
Yili-Nabisco Biscuit & Food Co. Ltd. (China)
Calpak Espanola, S.A. (Spain)
Corrugadora Guatemala, Sociedad Anonima (Guatemala)
Hellenic Food Industries Societe Anonyme (Greece)
Iricon Agency Ltd.
Japan Calpak Co., Ltd. (Japan)
R.J. Reynolds (Portugal) Empresa Comercia de Tabacos Ltda. (Portugal)
Bannatyne Enterprises Pte., Ltd.
Compagnie Fruitiere (Distributors) Limited
Compagnie Fruitiere (U.K.) Ltd.
Del Monte Kenya Limited
Dowbiggin Enterprises Pte. Ltd.
E. Harnois Ltd.
Empacadora Pasadena S.A.
ETA Foods Limited
Fabrica de Cigarillos El Progresso S.A.
Freehold S.A.
Freezer Queen Foods (Canada) Ltd.
Galletas Artiach, S.A.
The Hervin Company
Hervin Holdings, Inc.
Jack's Snacks Limited
Litographia A. Romero, S.A.
Lowney, Inc.
Marbu, S.A.
Mexican Foods Limited
Nabisco Brands Canada Ltd.
Nabisco Brands Espana, S.A.
Nabisco Brands Ltd.
Nabisco Brands Portugal Ltd.

Nacupa Enterprises Ltd.
R.J. Reynolds (Canary Islands) S.A.
R.J. Reynolds/M.C. Tobacco Co. Ltd.
Socieda Agricola Comercial
Ecuatoriana (SACE)
Spargo Enterprises Pte Ltd.
Stalwart Holdings Limited
Tabaco Rubio Ecuatoriana C.A.
Vallertort Enterprises Pte Ltd.

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UNITED STATES OF AMERICA,
Respondent.

PETITION FOR A WRIT OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE EIGHTH CIRCUIT

Petitioners Archer-Daniels-Midland Company and Nabisco Brands, Inc., pray that a writ of certiorari issue to review the judgment of the Court of Appeals for the Eighth Circuit in this case.

OPINIONS BELOW

The opinion of the court of appeals is reported at 866 F.2d 242 and is reproduced as Appendix A to this petition (1a-12a). The opinion of the district court is reported at 695 F. Supp. 1000 and is reproduced as Appendix B (13a-54a).

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[1] Citations to the Appendix will be in parentheses, e.g. "(3a)".

JURISDICTION

The court of appeals entered its judgment on December 15, 1988 (App. C, 55a), and denied a timely filed petition for rehearing on March 8, 1989 (App. D, 56a). The jurisdiction of this Court is invoked under 28 U.S.C. § 1254(1).

STATUTES INVOLVED

Section 1 of the Sherman Act, 15 U.S.C. § 1, provides in pertinent part:

> "Every contract, combination in the form of trust or otherwise, or conspiracy, in restraint of trade or commerce among the several States, or with foreign nations, is hereby declared to be illegal . . . ."

Section 7 of the Clayton Act, 15 U.S.C. § 18, provides in pertinent part:

> "That no corporation engaged in commerce shall acquire, directly or indirectly, the whole or any part of the stock or other share capital and no corporation subject to the jurisdiction of the Federal Trade Commission shall acquire the whole or any part of the assets of another corporation engaged also in commerce, where in any line of commerce in any section of the country, the effect of such acquisition may be substantially to lessen competition, or to tend to create a monopoly . . . ."

STATEMENT OF THE CASE

The question posed in this government antitrust suit is whether, as a divided panel of the Eighth Circuit held, a price differential of 10% to 30% is sufficient as a matter of law to place two interchangeable products into entirely separate "relevant product markets" under the antitrust laws if the price of one product is from time to time supported by a government program, even though the same price differential persists with or without the government program, and even though the two products

would otherwise be in the same relevant market because of their functional interchangeability, cross-elasticity of demand, and high degree of price correlation. The particular products are two popular sweeteners, sucrose (familiarly known as "sugar") and high fructose corn syrup (usually identified as "HFCS").

Commercial production of HFCS began in the early 1970s, which was about ten years prior to the commencement of this lawsuit. HFCS immediately confronted competition from sugar as the entrenched and centuries-old sweetener then being utilized for every known use of HFCS. To deal with such competition from sugar, HFCS prices had to be lower than those for sugar, and depending on specific seller/buyer negotiations, the price of HFCS for individual users has generally been in the range of 10% to 30% off the price of sugar.

In the trial court, the government acknowledged that in the earlier years of the decade before this lawsuit, HFCS had to compete in the same market with sugar. For this reason the government was compelled to develop an argument that would provide a basis for subsequently removing the two products from the same sweetener market and placing them into entirely separate markets.

To support such market transmutation, the government rested on an argument having both a legal and a factual component. The legal component is the novel proposition that a price differential in the context of a government price support program takes this case out of the usual antitrust rule that even a substantial price difference is generally irrelevant. The factual component revolves around the government's characterization of the prior competitive inroads of one product as being "irreversible," or "virtually complete," or "mature." According to the government, the competitive decisions made earlier by sweetener users when HFCS and sugar were in the same sweetener market are "irreversible" on the ground that

price supports for sugar under the "U.S. Sugar Program" will continue forever (or at least for the foreseeable future) to inflate the price of sugar and therefore prevent HFCS users from switching back to sugar. The district court rejected both the legal and factual components of the government's argument.

On appeal, without overturning the district court's underlying evidentiary findings refuting the factual component of the government's argument, a divided panel of the Eighth Circuit reversed the district court's decision. The majority opinion holds that sugar and HFCS cannot be in the same product market as a matter of law, because two products are not "reasonably interchangeable" for antitrust purposes where, as here, the price of one has been supported from time to time by a government price support program.

Immediately at issue is an agreement executed in June of 1982, whereby ADM leased from Nabisco two corn wet milling plants capable of producing HFCS as well as several other corn-derived products. Six months after the lease was executed, the government filed this lawsuit asserting that the lease should be treated as an acquisition that allegedly causes an unreasonable restraint of trade in violation of Section 1 of the Sherman Act and substantially lessens competition in violation of Section 7 of the Clayton Act. The antitrust violations are expressly predicated on asserted restraints of trade in an alleged relevant market consisting of HFCS alone. Defendants denied the alleged antitrust violations on numerous grounds, including their position that HFCS is merely one type of corn-derived sweetener competing in a relevant sweetener market that includes at least both sugar and HFCS.

After the government filed this lawsuit, the parties engaged in extensive discovery, almost four years of it, and much of the discovery concerned the competitive relationship among sugar, HFCS and other sweeteners.

This relationship was critical because the government acknowledged that the alleged antitrust violations could not be sustained unless the government could carry its burden of proving that HFCS is in a market by itself, entirely separate from sugar, dextrose, glucose (sometimes called "regular corn syrup"), and other sweeteners. A table reproduced in the district court's opinion makes the point vividly. It shows that, unless HFCS is deemed to be an entirely separate market, any possible anticompetitive effect of the lease is *de minimis* when measured by the Herfindahl-Hirschman Index that the government uses in its own merger guidelines. (26a-27a)

Both sides moved for summary judgment. The defendants, petitioners here, asked for a judgment dismissing the complaint on the basis of (1) the government's concession of its inability to establish any antitrust violation unless it could prove that HFCS is a separate market and (2) the undisputed facts on interchangeability, cross-elasticity and price sensitivity between HFCS and sugar that negated the existence of any separate HFCS market under the traditional antitrust legal rules for defining a relevant market. The government asked for a partial summary judgment that HFCS constitutes a separate market, relying on its novel price differential legal theory and "irreversible" factual argument tied to the assumed perpetual existence of inflated sugar prices under some form of U.S. Sugar Program. The district court granted the defendants' motion and denied the government's motion. It acted on undisputed "evidentiary facts" found to be "unusually extensive, particularly in regard to basic economic data"—evidence that "on the relevant product market issue" was "much the same as it would be at trial." (15a-16a) The district court ruled that at least sugar and HFCS are in the same product market, and it therefore found it unnecessary to decide whether other kinds of sweeteners are also in the same market. (17a)

The evidence in the summary judgment record includes massive economic data from official government documents. As the district court noted, "[f]or years, the Government has monitored and regulated sweeteners through a far-reaching and complex set of regulations generally called the 'U.S. Sugar Program.'" As a result, the Department of Agriculture and other federal agencies "have issued numerous publications containing economic data and analyses." (16a) The record also includes affidavits and deposition testimony of government officials, the government's admissions and answers to interrogatories in this case, and numerous affidavits and deposition testimony of both dealers in and commercial users of sweeteners. (15a)

The undisputed evidence reveals a wide range of sweeteners, both caloric and low-calorie or "diet" sweeteners. Caloric sweeteners are refined sugar (technically "sucrose") derived from sugar beets and sugar cane, plus corn-derived sweeteners consisting of glucose, dextrose and HFCS. The low-calorie sweeteners are primarily saccharin and aspartame. The undisputed evidence also establishes that sweeteners are used in six main categories of food and drinks: confections, dairy products, processed foods, canning, baking and beverages.

Corn-derived sweeteners were formerly limited to glucose ("regular corn syrup") and dextrose, which compete with sugar at a disadvantage because they are not as sweet. Beginning in the early 1970s, technological developments made it possible to produce a sweeter corn-derived product known as high fructose corn syrup or HFCS. The two most popular grades are HFCS-55, which is 55% fructose and about 94% to 95% as sweet as sugar, and HFCS-42, which is 42% fructose and somewhat less sweet than HFCS-55. (19a)

After its commercial introduction in the early 1970s, HFCS gradually expanded its usage largely at the expense of sugar. By the time of the lease in 1982, HFCS

had made competitive inroads into all six categories of food and drinks where sweeteners are used, with HFCS's penetration ranging from 1% in confections, 24% in baking, 31% in dairy products, 36% in beverages, 48% in processed foods, up to a high of 61% in canning. (25a) Throughout this period, the price of HFCS was generally in the range of 10% to 30% less than the price of sugar. (24a) HFCS did not by any means displace sugar, which is still regarded as the "King of Sweeteners." Indeed, sugar accounted for 43.2% of all caloric sweetener usage in 1985 as compared to only 29.6% for HFCS. (40a) This is not surprising because the two popular grades of HFCS have several quality disadvantages as compared to sugar. They are not only less sweet than sugar, which alone accounts for much of the price difference. They are also "handicapped," as the district court said, because they are "available only in liquid form whereas sugar is available as a dry crystalline product or in liquid form." (52a) The liquid form requires special storage tanks and handling facilities, including heated storage in the winter months, whereas dry sugar does not.

During the period from 1972 to 1985, when HFCS was making competitive inroads against sugar, domestic cane and beet sugar ~~procedures~~ producers were assisted from time to time by government price supports and import quotas under the U.S. Sugar Program. The legislation creating the current Sugar Program will expire automatically next year, and there is strong sentiment for either not renewing it or providing only a short phase-out of the program. When the government filed this lawsuit in 1982, HFCS had been vigorously competing against sugar for about ten years. During approximately half of that period (1975-1981), there was no U.S. Sugar Program affecting sugar prices, and consequently HFCS was in competition with sugar free of any price supports, import quotas or other restraints authorized under the U.S. Sugar Program. (21a-22a) Nonetheless, the 10% to 30% price differential between HFCS and sugar per-

sisted throughout the ten-year period, whether or not domestic sugar prices were supported by a governmental program.

As explained by the district court, the reason for this persistent price differential is that HFCS prices are determined by the price of sugar, a point that has been noted over and over in studies by sweetener experts of the Department of Agriculture. (43a) Since HFCS is handicapped by both actual and perceived quality disadvantages, competitive market forces require a lower price for HFCS than for sugar. Nonetheless, throughout its commercial life, the price of HFCS has moved synchronously with the price of sugar at a lower level, both in periods when the domestic price of sugar was supported under the U.S. Sugar Program and in periods when the world price of sugar has prevailed in the United States free of any artificial restraints. (41a-43a)

The district court, after analyzing this evidence under the tests of interchangeability, cross-elasticity, and price correlation or sensitivity, concluded that the relevant product market includes at least sugar along with HFCS. (44a) Interchangeability has never been an issue. The parties agreed that over the entire range of known uses of HFCS, sugar is interchangeable as a functionally acceptable, and even preferred, substitute for HFCS. Indeed, to the extent that HFCS has penetrated the sweetener market, it has been largely at the expense of sugar. (38a-39a)

The district court found further that undisputed evidence shows cross-elasticity of demand between HFCS and sugar. The evidence consists of (1) the experience in the United States market, where interchangeable but lower-priced HFCS has captured significant market share previously held by higher-priced sugar (39a-40a) and (2) the experience in Canada, where HFCS's usage ex-

panded when the world price of sugar (which is the Canadian price) was high and declined when the world price of sugar was low. (40a-41a)

The district court also found "that HFCS prices are highly correlated with sugar prices." (43a) The correlation is self-evident from a graph plotting price movements in recent years. Such a graph appeared in official government documents and is reproduced in the district court's opinion. (42a)

The government's novel price differential legal argument for a separate HFCS market was rejected by the district court, citing this Court's decisions in *United States* v. *E.I. du Pont de Nemours & Co.*, 351 U.S. 377 (1956) ("*Cellophane*" case), and *Brown Shoe Co.* v. *United States*, 370 U.S. 294 (1962). The district court concluded that *Cellophane*, and the cases following it, "have established that price differentials, even substantial ones, are insufficient as a matter of law to overcome other undisputed evidence showing interchangeability, cross-elasticity and price correlation between substitute products." (46a)

The government's "irreversible" factual argument was also rejected by the district court because it was refuted by a plethora of undisputed evidence. Such evidence showed, by way of example, that (1) both large and small sweetener users have switched or threatened to switch back and forth between HFCS and sugar (48a-50a); (2) HFCS users have retained sugar-handling equipment to permit them to switch to sugar at will (49a); (3) John R. Block, Secretary of Agriculture from 1981 to 1986, stated by affidavit that his years of experience as Secretary confirmed that HFCS and sugar are in substantial competition with each other (44a); and (4) much uncertainty exists as to whether the U.S. Sugar Program, which expires automatically in 1990, will be continued, phased-out, or terminated (46a-47a).

On appeal, a majority of the Eighth Circuit panel, with Judge Heaney writing for himself and Judge McMillian, reversed the district court's rulings on the law but not on the underlying evidentiary facts. The panel's majority held as a matter of law that, while "sugar and HFCS are functionally interchangeable for all users for which HFCS is suitable, . . . they are not reasonably interchangeable because of the price differential between the two products." (7a)

The panel's majority acknowledged that, under the traditional rule of antitrust, "generally a price differential, even a substantial one, is irrelevant for purposes of determining reasonable interchangeability," but the traditional rule does not apply, according to the majority, where there is "a large price differential as a result of a government price support raising the price of one product, but not the other, to an artificially high level." (7a-8a) The majority said that this exception to the general rule is required "because of the inability of the price supported product to constrain the price of the other product." (8a) The panel's majority gave no further explanation of this supposed "inability" of sugar to compete with HFCS, even though sugar remains as the dominant sweetener. Nor did it even try to explain how the persistent price differential, with and *without* the U.S. Sugar Program, has a different legal status for HFCS and sugar from that of price differences for other products where, as the panel said, even a substantial price differential is generally irrelevant.

The panel's majority not only reversed the grant of summary judgment to the defendants but went on to grant to the government a summary judgment "that sugar is *not* in the same relevant product market as HFCS." (12a) This was *not* the summary judgment requested in the district court, where the government asked for partial summary judgment that HFCS is in a market separate from all other sweeteners, not just from sugar.

And is it not a summary judgment requested in the Eighth Circuit, because the government did not even appeal from the district court's denial of its motion for partial summary judgment.

Judge Ross dissented from the panel's majority opinion because, "[f]or the reasons set forth in the district court's opinion," he could not "agree with the majority's conclusion that HFCS and sugar do not belong in the same relevant product market." (12a)

REASONS FOR GRANTING THE WRIT

The court of appeals has decided an important question of antitrust law in a way that is inconsistent with controlling decisions of this Court and that conflicts with decisions of other circuits faithful to this Court's precedents. The majority opinion below holds that in determining the relevant product market for antitrust purposes, a 10% to 30% price differential between two products creates a separate market for each product if the price of one of the products has been supported from time to time under a government program, even though such program does not change the price differential and even though the traditional antitrust tests indicate that the two products are in the same market. That ruling is contrary to this Court's decisions in *United States* v. *E.I. du Pont de Nemours & Co.*, 351 U.S. 377 (1956), and *Brown Shoe Co.* v. *United States*, 370 U.S. 294 (1962), and conflicts with decisions of several courts of appeals.

There is no precedent for the lower court's novel legal rule that a government price support program provides an exception to the usual antitrust rule that a price differential, without more, does not create separate markets for the two products involved. Moreover, this ground of distinction is not supportable on the underlying evidentiary findings of the district court, which were left undisturbed by the court of appeals. The price support pro-

vided by the U.S. Sugar Program is a transient, sometime thing. In many years, there has been no U.S. Sugar Program that affected the domestic price of sugar, and consequently the price differential between sugar and HFCS during those years cannot be attributed to any price supports. Moreover, the current version of the U.S. Sugar Program will expire automatically next year, with no assurance that it will be reinstituted or that any similar program will be put in its place.

1. *Conflict With Decisions of This Court*

In the *Cellophane* case, the issue was whether du Pont, the overwhelmingly dominant producer of cellophane, was a monopolist in violation of Section 2 of the Sherman Act. Resolution of this issue turned on whether the relevant product market was limited to cellophane alone or encompassed flexible packaging materials generally. The government asked the Court to declare du Pont a monopolist of an alleged cellophane market on the ground that the relevant market for antitrust purposes should be limited, as a matter of law, to products that "are substantially fungible" and that "sell at substantially the same price." 351 U.S. at 394. The Court rejected that argument. It held instead that the "market" for antitrust purposes "is composed of products that have reasonable interchangeability for the purposes for which they are produced—price, use and qualities considered." *Id.* at 404.

The Court recognized that cellophane and other wrapping materials were by no means "fungible" and that "cellophane combines the desirable elements of transparency, strength and cheapness more definitely than any of the others." *Id.* at 397-98. But this did not make legally irrelevant other evidence showing that cellophane "in every one of its uses" was confronted by other materials used for the same purpose. The Court noted that "cellophane furnishes [approximately] . . . 7% of wrap-

pings for bakery products, 25% for candy, 32% for snacks, 35% for meats and poultry, 27% for crackers and biscuits . . . [and] seventy-five to eighty percent of cigarettes." *Id.* at 399. The conclusion was that "[t]hus, cellophane shares the packaging market with others." *Id.* at 399. Here, as the district found on undisputed evidence, HFCS shares the sweetener market with sugar in each of the six major categories of food and drinks in which sweeteners are used, and the percentages for HFCS parallel those for cellophane's usage for wrapping materials. (25a) Just as cellophane and other wrapping materials, though not fungible, were "reasonably interchangeable by consumers for the same purposes," *id.* at 395, so are HFCS and sugar reasonably interchangeable, although they are not "fungible," have different sweetening qualities, and are perceived differently by users long accustomed to sugar as the entrenched sweetener.

As for the government's argument in *Cellophane* "that the variation in price between cellophane and other materials demonstrates they are noncompetitive," 351 U.S. at 400, the Court recognized that the price of cellophane was two or three times as high as the prices of glassine and greaseproof papers, while other wrapping materials were even more expensive than cellophane, *id.* at 401. In this case, the district court computed, from figures in an appendix to the *Cellophane* opinion, that there was a 771% price difference between the lowest-priced and the highest-priced flexible packaging product under consideration. (35a n.24) But these large price differences did not alter the Court's decision in *Cellophane* that there was reasonable interchangeability creating a single relevant market for all of these flexible packaging materials. The *Cellophane* precedent established the rule of antitrust law that a price difference between nonfungible but functionally interchangeable products does not, without more, place them in entirely separate markets on the

ground the price difference makes them not reasonably interchangeable.

In *Brown Shoe*, the argument for a narrow market based on price differences for functionally interchangeable goods was made by the private party defendant. It was no more successful than the government's argument in the *Cellophane* case. The Court said that it "would be unrealistic to accept Brown's contention" that medium-priced shoes were in a different market from low-priced shoes, because "the relevant market must be drawn with sufficient breadth to include the competing products . . . and to recognize competition where, in fact, competition exists." 370 U.S. at 326. The Court reiterated the rule of *Cellophane* that "[t]he outer boundaries of a product market are determined by the reasonable interchangeability of use or the cross-elasticity of demand between the product itself and substitutes for it." *Id.* at 325. Price differences were again discounted as market separation evidence in *United States* v. *Continental Can Co.*, 378 U.S. 441, 455-56 (1964).

2. *Conflict With Decisions of Other Circuits*

The law of *Cellophane* and *Brown Shoe*, though developed three decades ago, is the law that has been applied by the courts of appeals. Price differentials, even quite substantial price differentials, have been held not to create two markets where the tests of functional interchangeability, cross-elasticity, and "sensitivity to price changes," 370 U.S. at 326, indicate only one market. Thus, the Fourth Circuit rejected the proposition that "premium" and "economy" canned dog food should be placed in separate markets, *Liggett & Myers* v. *FTC*, 567 F.2d 1273, 1274-75 (4th Cir. 1977), and the First Circuit held that a price differential did not create separate markets for conventional and more expensive pipeless recirculation systems for swimming pools, *George R. Whitten, Jr., Inc.* v. *Paddock Pool Builders*, 508 F.2d

547, 553-54 (1st Cir. 1974), *cert. denied*, 421 U.S. 1004 (1975). Similarly, the Ninth Circuit, after observing that a "price differential" is a pertinent factor to consider in determining the relevant market for computers selling at different prices, proceeded to hold that a "price differential alone does not govern the scope of the relevant market." *Kaplan* v. *Burroughs*, 611 F.2d 286, 292 (9th Cir. 1979), *cert. denied*, 447 U.S. 924 (1980).

Years ago, in a case that interestingly forecast this one, the Second Circuit held that cane sugar and beet sugar were in the same sweetener market, despite a price difference of 20 cents a hundredweight resulting apparently from a lingering consumer perception of beet sugar as a less desirable newcomer into the sweetener market. *American Crystal Sugar Co.* v. *Cuba-American Sugar Co.*, 259 F.2d 524, 527-29 (2d Cir. 1958). The same court of appeals more recently held that brand-name frozen waffles and private-brand frozen waffles are in the same product market despite the higher price of the brand-name product. *Nifty Foods Corp.* v. *Great Atlantic & Pacific Tea Co.*, 614 F.2d 832, 840-41 (2d Cir. 1980). Quoting *Brown Shoe*'s rejection of the price differential argument as "unrealistic" for interchangeable products of varying quality, the court said that it would be "even less realistic" to draw such a distinction "where the two types of waffles are sold side by side in the same frozen food cases and distinguished only by label and price, and not quality." *Id.* at 840.

Here, the majority opinion below relied on the misapprehension that defendants had conceded that HFCS and sugar are "fully interchangeable . . . as to quality" (3a) which is not true, as well as being functionally interchangeable, which is true. Putting aside the misapprehension of the record, the majority below stressed quality sameness as a decisive factor in placing two products in different markets due to a price difference, whereas the law of the Second Circuit makes it "even

less realistic" to give such legal effect to a different price for two interchangeable products of the same quality.

The decision below cannot be squared with these decisions of sister courts of appeals any more than it can with the controlling decisions of this Court.

3. *Distinction Based on Intermittent Government Price Support Program Is Without Legal Precedent*

The majority opinion below acknowledged the rule of *Cellophane* when it said that "generally a price differential, even a substantial one, is irrelevant for purposes of determining reasonable interchangeability." (7a) It then went on to rule that "a large price differential as a result of a government price support raising the price of one product, but not the other, to an artificially high level is a relevant factor" and that such factor is decisive in this case "because of the inability of the price supported product to constrain the price of the other product." (7a-8a) It gave no further explanation of such a novel gloss on the rule of *Cellophane*. It did not say why a higher price induced from time to time by government price supports cannot competitively constrain a lower price of a functionally interchangeable product, whereas a higher price resulting from increased costs or other factors exerts so much constraint that even a substantial price differential is generally irrelevant for antitrust purposes.

There is no precedent for the position of the majority below that gives decisive effect to a price differential in placing two products in separate markets merely because the price of one is supported from time to time by a government program. Indeed, the one decision on this point, a decision of a differently constituted panel of the same Court of Appeals for the Eighth Circuit, is strongly to the contrary. In *City of Mt. Pleasant* v. *Associated Electric Co-op.*, 838 F.2d 268 (8th Cir. 1988), a city government was the owner and operator of an electric

utility, and it sued a group of rural electric cooperatives for, among other things, monopolizing "the relevant market in wholesale electricity." *Id.* at 270. The city argued that the relevant market consisted solely of "economical electric energy," by which it meant the lower-priced electric power produced by the cooperatives with the assistance of a government subsidy or support program.

The panel rejected the city's argument and ruled, to the contrary, that the product market consisted of all electric power energy available in the relevant geographic area. It said:

> It would be a strange antitrust doctrine indeed that would place a product in its own market or submarket simply because, though indistinguishable in any other way, it cost less. This would turn competition on its head, for, by definition, any competitor who, for any reason, always priced his product below his competitors' would be a monopolist, and subject to severe civil and criminal sanction. Surely there are any number of sellers who, by virtue of superior skill, advantageous location, or the structure of the market, can undersell their competitors—are they to be, *ipso facto*, branded monopolists? And what of this case, where the cooperative's 'subsidy' is the availability of federal loans and loan guarantees, granted by Congress—are we to say that what Congress gives with one hand it has made illegal with the other? We think not.

838 F.2d at 279-80.[2]

There is no rational warrant for treating the price differential in this case differently from the way it was

---

[2] The majority opinion in this case attempted to distinguish *Mt. Pleasant* by quoting only a part of the last two sentences of the passage quoted above in full, thereby trying to restrict *Mt. Pleasant* to a case that rested on the particular congressional purpose for a particular subsidy. (10a-11a) We leave to the Court whether that is a fair reading of the passage from the *Mt. Pleasant* opinion. A petition for rehearing to resolve the conflict between the decision below and *Mt. Pleasant* was denied without explanation.

treated in *Cellophane* merely because the price of one of the products has been supported from time to time by a government program. By the standard of *Cellophane* and its progeny, a price differential clearly does not in and of itself cause products with functional interchangeability, cross-elasticity and price sensitivity to cease being "reasonably interchangeable" so that they must be placed in two separate product markets.

4. *Distinction Based On Government Price Support Is Not Warranted By the Evidence During Half of the Relevant Period*

In any event, the 10% to 30% price differential between sugar and HFCS, a differential far less than the price differences in *Cellophane*, has persisted even when there was no price program for sugar or when the market-driven world price of sugar made the program irrelevant. The situation obtained in the period 1975-81, accounting for almost half of the ten or so years between the commercial introduction of HFCS and the commencement of this lawsuit. In those years without any price support for sugar, the competitive price differential of 10% to 30% between sugar and HFCS was the same as in the other years when the price of sugar was supported. Thus, with or without a sugar price support program, HFCS is able to compete with sugar but has not displaced sugar as the entrenched sweetener, just as lower priced beet sugar was able to compete with cane sugar 30 years ago but could not displace it. Moreover, in periods with and without sugar price supports, the prices of sugar and HFCS have moved together at their respective levels, indicating the sensitivity of the price of one to that of the other. The undisputed evidence in the record shows cross-elasticity of demand and price sensitivity, which provide the price constraining effect that the court below said was wanting.

The majority opinion below said that there was "no evidence . . . demonstrating a *high* cross-elasticity of de-

mand between sugar and HFCS." (11a) (emphasis added). But it never explained why the cross-elasticity fell short of being "high." Moreover, the reason it thought there was lack of sufficient cross-elasticity, despite the evidence (pp. 8-9, *supra*), was solely the price differential (11a-12a). The court was really, therefore, just repeating its view that a price differential causes two products not to be reasonably interchangeable as a matter of law.

This Court said in *Cellophane* that a relevant antitrust market "is composed of products that have reasonable interchangeability for the purposes for which they are produced—price, use and qualities considered." 351 U.S. at 404. HFCS and sugar have competed in the same sweetener market at different price levels because, like the different flexible wrappings in *Cellophane*, the price differences reflect actual or perceived quality differences and because they are reasonably interchangeable considering the differences in their prices, uses and qualities (and their perceived qualities). The government's price support of sugar, even in the years in which there was one, has not prevented that competition from existing.

Moreover, the statutory authorization for the price support will expire in 1990, and there is strong sentiment for allowing it to lapse. Indeed, since it will require affirmative congressional action to keep it going or to install something else in its place, the Court cannot know what the future holds. The majority opinion below said that if the price supports were eliminated, "the price of sugar at that time may or may not constrain the price of HFCS, and we may have to take another look at this product market." (7a) In what context the court below thought it would, or could, take such "another look" it did not say, and any subsequent look is not likely to assist these petitioners, whose case, if not reviewed here, in all likelihood will be decided long before any such new look can be taken. The time for a look "at this product market" is now.

CONCLUSION

The precedents in *Cellophane* and *Brown Shoe* were established three decades ago. In the meantime, business practices deserving antitrust scrutiny have changed dramatically, especially in the "take-over" area where the relevant market for antitrust purposes is often of vital importance. The antitrust laws, the application of which depends so heavily upon the decisions of the Court, must keep abreast of current business practices. In this case, the majority opinion below has endorsed a novel price differential theory for defining the relevant market which is inconsistent with the 30-year-old precedents. It is time for the Court to review the law of *Cellophane* and *Brown Shoe* and provide both the business community and antitrust enforcement authorities a fresh view concerning an increasingly crucial area of antitrust law on the relevant product market.

Accordingly, this petition for a writ of certiorari should be granted.

Respectfully submitted,

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April 24, 1989

APPENDICES

APPENDIX A

UNITED STATES COURT OF APPEALS
FOR THE EIGHTH CIRCUIT

No. 87-2343

UNITED STATES OF AMERICA,
Appellant,

v.

ARCHER-DANIELS-MIDLAND COMPANY
and NABISCO BRANDS, INC.,
Appellees.

Appeal from the United States District Court
for the Southern District of Iowa

Submitted: May 9, 1988

Filed: December 15, 1988

Before HEANEY, Circuit Judge, ROSS, Senior Circuit Judge, and MCMILLIAN, Circuit Judge.

HEANEY, Circuit Judge.

On June 12, 1982, Nabisco Brands, Inc. (Nabisco) leased to Archer-Daniels-Midland Co. (ADM) two corn wet milling plants. On December 14, 1982, the United States commenced an antitrust action in the United

States District Court for the Southern District of Iowa, alleging that the lease creates an unreasonable restraint of trade in violation of section 1 of the Sherman Act and may substantially lessen competition in violation of section 7 of the Clayton Act. After substantial discovery, the parties made cross-motions for summary judgment. The trial court granted appellees' motion and ordered the government's complaint dismissed. The district court held in substance that, based on the tests of reasonable interchangeability, cross-elasticity of demand and price correlation, high fructose corn syrup (HFCS) and sugar are in the same relevant product market. We reverse and remand for further action consistent with this opinion, which concludes that sugar is not in the same relevant product market as HFCS.

I. BACKGROUND

This case involves sweeteners, primarily two different types of commercial sweeteners—sugar and HFCS. Sugar, technically called sucrose, is processed from either sugarcane or beet sugar. HFCS is a sweetener produced from corn.

In the early 1970's, new technology was sufficiently widespread to permit the processing of certain corn syrup products into a sweetener product by the use of enzymes capable of isomerizing the syrup into fructose. This process is used today to produce corn syrup containing 42% fructose (HFCS 42), 55% fructose (HFCS 55), and 90% fructose (HFCS 90). Although HFCS 42 is not as sweet as sugar, it may be used as a substitute for sugar in sweetening various products, such as canned fruits and vegetables. HFCS 55, a popular corn sweetener used by soft drink producers, is between 94% and 95% as sweet as sugar.

Since 1934, sugarcane and beet sugar growers have benefitted from either direct subsidies or sugar price supports enacted by Congress. The present price support

program is due to expire in 1990. Because of the price supports, the price of HFCS has been lower than the price of sugar for a number of years.

The government presented evidence that if the lease between ADM and Nabisco was consummated ADM would be able, because of its newly established market position, to raise the price of HFCS to a level just below the price of sugar. ADM and Nabisco argue that—while the government's contention may be true—because sugar and HFCS are in the same relevant product market, ADM's market share of that market is not sufficient to constitute a violation of either the Sherman Act or the Clayton Act.

II. DISTRICT COURT OPINION

The district court held that sugar is in the same relevant product market as HFCS.

To determine product market, the court applied three legal tests: reasonable interchangeability, cross-elasticity of demand and price correlation. The court found that, since it is undisputed that HFCS and sugar are fully interchangeable as to use and to quality, the two products are reasonably interchangeable. The lower court also found that, because HFCS's lower price since its commercial introduction has caused substantial displacement of sugar in the market, there is cross-elasticity of demand between sugar and HFCS. This finding was substantiated by data demonstrating high cross-elasticity of demand between HFCS and sugar in Canada. (Sugar prices are not artificially supported in Canada.) Finally, the court found that the high degree of price correlation between sugar and HFCS also supports the appellees' contention.

Based on these findings, the district court determined that HFCS and sugar are in the same relevant product market.

III. THE GOVERNMENT'S ARGUMENT

The government argues generally that product market must be defined in a manner that permits evaluation of market power. From this premise, the government asserts that the district court erred in its use of the legal tests defining relevant product market.

The government contends that, under either the Merger Guidelines, U.S. Department of Justice, Merger Guidelines ¶ 2.0, *reprinted in* 2 Trade Reg. Rep. ¶ 4490, or the reasonable interchangeability test, the evidence that HFCS purchasers will not switch back to sugar as long as HFCS remains cheaper is sufficient to establish that sugar and HFCS are not in the same product market. It asserts that the district court erred in ignoring how this price differential affects competition between HFCS and sugar. Because the two products are functionally equivalent as to use and quality, price differential must, according to the government, play a heightened role.

Secondly, the government argues that the district court erred in relying on simple cross-elasticity of demand rather than high cross-elasticity of demand because only high cross-elasticity demonstrates effective competition. In addition, the government asserts that the court based its findings of cross-elasticity on irrelevant evidence.

The government's final argument is that there is still a question of fact as to whether there is a high degree of price correlation.

IV. NABISCO'S AND ADM'S ARGUMENT

ADM and Nabisco ask us to summarily affirm the district court because that court relied on the correct legal tests and undisputed evidence. The theme of their argument is that one must establish the relevant product market first, before one can measure market power.

They specifically argue that the functional interchangeability as to use and quality between sugar and HFCS is

sufficient to meet the reasonable interchangeability test. ADM and Nabisco also argue that cross-elasticity of demand is relevant even if the amount of cross-elasticity is not high. In particular, the appellees argue that the movement of sugar consumers to HFCS is not, contrary to the government's argument, irreversible. Finally, the government's own evidence demonstrates an extremely high degree of price correlation.

The appellees reject several of the government's arguments. To reject the government's price differential theory, they assert that a plethora of authority states that even a substantial price difference is insufficient as a matter of law to place two products into separate markets. To reject the government's reliance on the Merger Guidelines, ADM and Nabisco argue that the barometer of a five percent increase, suggested in the Guidelines, permits the exclusion of any product that is selling at a price differential of greater than five percent. To reject the assumption that the movement of buyers to HFCS from sugar is irreversible, the appellees point to the testimony of several buyers stating that their companies have threatened to buy sugar in lieu of HFCS unless HFCS producers lowered their price.

V. DISCUSSION

This case is before us on summary judgment. Because of that, our discussion is limited to the question of whether sugar belongs in the same relevant product market as HFCS. Summary judgment in an antitrust case is mandated, after adequate time for discovery and upon motion, against a party who fails to make a showing sufficient to establish the existence of an element essential to that party's case, and on which that party will bear the burden of proof at trial. *Celotex Corp. v. Catrett*, 477 U.S. 317, 323 (1986). The suggestion that a different, heightened standard applies in complex antitrust cases is incorrect. *City of Mt. Pleasant, Iowa v. Assoc. Elec. Co-op.*, 838 F.2d 268, 274 (8th Cir. 1988). Our focus is therefore to determine whether summary judgment was

properly granted for Rule 56(c) of the Federal Rules of Civil Procedure under the standard set forth in *Celotex Corp. v. Catrett.*

Antitrust legislation does not exist in a vacuum. Its goal is full and free competition in the marketplace. The various legislative acts were inspired both by public opposition to trusts and holding companies in the late nineteenth century and by a historical hostility to monopolies stemming from colonial time. Their premise is that the unrestrained interaction of competitive forces will yield the best allocation of resources. The primary method of assuring a free competitive economy in the United States is by legislation prohibiting unfair methods of competition, such as the acquisition of monopoly power and acquisitions that may substantially lessen competition. In essence, these two prohibitions regulate private business behavior because of the fear of unjustified power in the hands of a small minority.

The lawfulness of an acquisition turns on the purchaser's potential for creating, enhancing, or facilitating the exercise of market power—the ability of one or more firms to raise prices above competitive levels for a significant period of time. *See United States v. E. I. duPont de Nemours & Co.*, 351 U.S. 377, 391, 393 (1956) (*Cellophane*).

The boundaries of the product market of a particular product can be determined by the reasonable interchangeability or cross-elasticity of demand between itself and possible substitutes for it. *Brown Shoe Co. v. United States*, 370 U.S. 294, 325 (1962). Reasonable interchangeability and cross-elasticity of demand are not used to obscure competition but to recognize competition, or the lack of competition, to the extent such exists. *United States v. Continental Can Co.*, 378 U.S. 441, 453 (1964); *Brown Shoe Co. v. United States*, 370 U.S. at 324. Or, in other words, these concepts help evaluate the extent competition constrains market power and are, therefore, indirect measurements of a firm's market power.

We accept the finding that sugar and HFCS are functionally interchangeable for all uses for which HFCS is suitable, but we cannot ignore the fact that Congress has enacted a sugar program that has artificially inflated the price of sugar. As a result, the domestic price of HFCS has been 10%-30% lower than the price of sugar. Because of lower price, many buyers of sugar have turned to HFCS. As long as an effective price support program is in existence, a monopolist of HFCS will be able to raise the price of HFCS to just below the supported price of sugar before being constrained by the competitive forces of sugar. In other words, the HFCS monopolist is able to exercise excess market power.

If, at some time in the future, the government decides to eliminate the price supports, the price of sugar at that time may or may not constrain the price of HFCS, and we may have to take another look at this product market.

While sugar and HFCS are functionally interchangeable, they are not reasonably interchangeable because of the price differential between the two products.

> The varying circumstances of each case determine the result. In considering what is the relevant market for determining the control of price and competition, no more definite rule can be declared than that commodities reasonably interchangeable by consumers for the same purposes make up that "part of the trade or commerce," monopolization of which may be illegal.

Cellophane, 351 U.S. at 395 (footnote omitted).

The three most relevant factors used to determine reasonable interchangeability are use, quality and price. *Id.* at 404. Sugar and HFCS are admittably similar in use and quality. While generally a price differential, even a substantial one, is irrelevant for purposes of determining reasonable interchangeability, a large price differential as a result of a government price support raising the

price of one product, but not the other, to an artificially high level is a relevant factor. This is true because of the inability of the price supported product to constrain the price of the other product. The artificially high price of sugar does not constrain the price of HFCS; thus, the competition from sugar does not regulate HFCS producers' business behavior. Competition between HFCS producers may be necessary to accomplish this goal. The price differential between sugar and HFCS, at least as a result of government price supports, is sufficient to show that sugar is not reasonably interchangeable with HFCS and thus does not belong in the same relevant product market with HFCS.

On January 29, 1988, this Court handed down an opinion in *City of Mt. Pleasant, Iowa v. Assoc. Elec. Co-op.*, 838 F.2d 268 (8th Cir. 1988). The appellees assert that *Mt. Pleasant* controls the instant case. We disagree.

In *Mt. Pleasant*, the City of Mt. Pleasant, Iowa, alleged that a group of interrelated cooperatives, which received financial assistance from the United States government, acting together to produce and distribute electric power violated both the Sherman Act and the Clayton Act by charging the City higher prices than they charged their own member customers. The district court granted summary judgment in favor of the cooperatives. We affirmed on the following grounds.

(1) As to the Section 1 conspiracy claim, we held that the City failed to demonstrate that there was price competition between the cooperatives. *Id.* at 277. We said:

> The record bears out defendants' claim that the cooperative organization is a single enterprise pursuing a common goal—the provision of low-cost electricity to its rural members. The burden is therefore on the City to show specific facts which present a triable issue as to whether any of the defendants has pursued interests diverse from those of the coopera-

> tive itself. By "diverse" we mean interests which tend to show that any two of the defendants are, or have been, actual or potential competitors * * *.
>
> * * * *
>
> Even though the cooperatives may quarrel among themselves on how to divide the spoils of their economic power, it cannot reasonably be said that they are *independent sources* of that power. Their power depends, and has always depended, on the cooperation among themselves. They are interdependent, not independent.
>
> * * * *
>
> There is no indication that there was price competition between Associated and either Central or Northeast. We cannot see that this kind of dispute tends to make the members less dependent on one another for their economic power.

Id. at 276-77 (citations omitted).

(2) As to the Robinson-Patman price discrimination claim, the district court held that the intra-enterprise transfers between cooperatives were not "sales" for purposes of Robinson-Patman, and the court therefore granted summary judgment. We affirmed.

> The City complains that Northeast's higher prices to it than to the distribution cooperative surrounding the City hamper its ability to compete at retail. But in reality the cooperative association is a single enterprise, and the City competes at retail not just with the neighboring distribution cooperative, but with Northeast, Associated, and all the other G & T and distribution cooperatives as well.
>
> * * * *
>
> [Thus,] it would, in our opinion, be completely anomalous to hold, on the one hand, that the cooperative is a single enterprise which cannot conspire with itself under the Sherman Act, and, on the other hand,

> that the same single enterprise cannot enjoy the fruits of vertical integration by transferring goods between its constituent units at a "price" below what it charges customers.

Id. at 278-79.

(3) As to the City's monopoly claims, we held that there was no basis in the record from which a juror could reasonably infer that the cooperative dominated the wholesale supply market to the extent that the cooperative had a monopoly in it. *Id.* at 279. We stated that even if every reasonable inference was resolved in the City's favor, the City had nonetheless failed to set forth evidence of the cooperative's market power in the relevant geographic area. *Id.* The mere fact that Congress subsidized the cooperatives and enabled them to produce electricity at a lesser cost than non-cooperative sources does not obligate the cooperatives to sell power to members and non-members at the same price. *Id.* at 279-80.

> [A]re we to say that what Congress gives with one hand it has made illegal with the other? We think not.

Id. at 280.

In other words, Congress *intended* that the cooperatives would make power available to their members scattered over long distances at a lower cost than the cost of power at market rates.

As to the City's second monopoly claim that the cooperative controlled the only transmission lines capable of supplying power to the City, we held that the mere possession of such economic power is not unlawful. *Id.* It is not mere monopoly (a status or condition), but rather monopolization (an activity) that Section 2 condemns. *Id.*

Mt. Pleasant is unlike the instant case. While both deal with the issue of the effect of a government subsidy on market definition, nowhere in the instant case is there

any indication of an intent on the part of Congress to permit HFCS producers to use the sugar subsidy to raise the price of HFCS. Congress intended, by passing the price support program, that only the price of sugar and not the price of HFCS may be raised above competitive levels. The subsidy to the cooperative in *Mt. Pleasant* tends to drive prices down, effectively constraining the price of the unsubsidized competitors, but the price supports to sugar can only effectively constrain the price of HFCS at a certain level. If we permit the elimination of competition among the HFCS producers, it may have the effect of increasing the price of HFCS to consumers. Congress could not have intended such a result.

Additionally, no evidence exists at the present time demonstrating a high cross-elasticity of demand between sugar and HFCS. Whether two particular products belong in the same relevant product market can be demonstrated by the extent of cross-elasticity of demand between the two products; in other words, the readiness and ability of consumers of one product to turn to the other product. *Id.* at 400; *United States v. Empire Gas Corp.*, 537 F.2d 296, 303 (1976). To be relevant, the cross-elasticity of demand must be sufficiently high to statistically reflect consumers' perception that the two products are reasonably interchangeable. *See United States v. Empire Gas Corp.*, 537 F.2d at 303. "The greater the positive cross-elasticity of demand between two products is, the closer substitutes they are." *Smith Kline Corp. v. Eli Lilly & Co.*, 575 F.2d 1056, 1063 (3rd Cir.), *cert. denied*, 439 U.S. 838 (1978); *see also Rothery Storage & Van Co. v. Atlas Van Lines, Inc.*, 792 F.2d 210, 218 (D.C. Cir. 1986) (the higher the cross-elasticity of demand is, the more likely the two products are in the same relevant product market), *cert. denied*, 107 S. Ct. 880 (1987). Because of the significant price difference between HFCS and sugar, a small change in the price of HFCS would have little or no effect on the

demand for sugar.[1] The cross-elasticity of demand between HFCS and sugar is low, evidencing that the two products belong in different product markets.

VI. CONCLUSION

We hold that the district court erred in granting summary judgment that sugar is in the same relevant product market as HFCS. We, in turn, grant summary judgment to the appellant that sugar is *not* in the same relevant product market as HFCS. We therefore reverse and remand in accordance with the standards set forth above.

ROSS, Senior Circuit Judge, dissenting.

For the reasons set forth in the district court's opinion, *United States v. Archer-Daniels-Midland Co.*, 695 F.Supp. 1000 (S.D. Iowa 1987), I cannot agree with the majority's conclusion that HFCS and sugar do not belong in the same relevant product market. Accordingly, I respectfully dissent on the basis of the district court's opinion.

A true copy.

Attest:

Clerk, U.S. Court of Appeals
Eighth Circuit.

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[1] The district court relied on two erroneous findings to conclude that there is sufficient cross-elasticity of demand between sugar and HFCS to demonstrate that the two products belong in the same relevant product market. The evidence of the substantial displacement of sugar by HFCS is irrelevant because this displacement focuses on static, rather than dynamic, price and demand relationships. The appropriate question is whether a slight increase in the price of HFCS causes a considerable number of buyers of HFCS to switch to sugar. The evidence of high cross-elasticity of demand between sugar and HFCS in Canada is also irrelevant because the market conditions in Canada differ radically from the market conditions in the United States. When, and if, Congress allows sugar and HFCS to compete in market conditions similar to those that exist in Canada, this Canadian evidence will then be relevant.

APPENDIX B

IN THE UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF IOWA
CENTRAL DIVISION

Civil No. 83-51-D

UNITED STATES OF AMERICA,
Plaintiff,

v.

ARCHER-DANIELS-MIDLAND COMPANY
and NABISCO BRANDS, INC.,
Defendants.

MEMORANDUM OPINION

[Filed Aug. 6, 1987]

This is an antitrust case brought by the United States of America ("Government") against the defendants, Archer-Daniels-Midland Company ("ADM") and Nabisco Brands, Inc. (Nabisco).

On June 12, 1982, Nabisco leased to ADM, for a specified number of years, two corn wet milling plants, one in Clinton, Iowa, and the other in Montezuma, New York. The Government alleges that the lease agreement is a contract or combination creating an unreasonable restraint of trade in violation of section 1 of the Sherman Act, 15 U.S.C. § 1, and that the lease also amounts to an acquisition which may substantially lessen competi-

tion in violation of section 7 of the Clayton Act, 15 U.S.C. § 18.[1]

An essential element of both of the alleged antitrust violations is proof of injury to competition in the relevant product market. Therefore, the relevant product market must be defined. *Walker Process Equipment, Inc. v. Food Machinery & Chemical Corp.*, 382 U.S. 172, 177 (1965). This memorandum opinion explains the following Rulings and Order of Dismissal deciding the relevant product market issue, entered on May 29, 1987:

> All parties—the defendants through their motion for summary judgment and the plaintiff through its cross-motion for summary judgment—seek adjudication of a major issue in this antitrust case: whether the relevant product market is limited to high fructose corn syrup (HFCS). [Footnote omitted.]
>
> The summary judgment record, to which I have applied the tests of interchangeability of use, cross-elasticity of demand and price correlation, shows that the relevant product market is not limited to HFCS; therefore, there is no genuine issue about relevant product market left to try. Because plaintiff's claims are dependent upon proving that the relevant product market consists solely of HFCS, defendants are entitled to judgment as a matter of law.
>
> Plaintiff's cross-motion for summary judgment is denied. Defendants' motion for summary judgment is granted, and IT IS ORDERED that plaintiff's complaint be dismissed.

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[1] Earlier in the litigation this court held that the lease constitutes an acquisition by ADM of part of the assets of Nabisco within the meaning of section 7 of the Clayton Act. *United States v. Archer-Daniels-Midland Co.*, 584 F. Supp. 1134 (S.D. Iowa 1984), certified interlocutory appeal under 28 U.S.C. § 1292(b) *dismissed*, (8th Cir. May 29, 1984) (unpublished order).

A memorandum opinion explaining this decision will be filed in the near future.

At the time of the hearing on the cross-motions for summary judgment, the parties had been allowed over four years of discovery, which was extensive. At the hearing on the motions for summary judgment, counsel for both sides agreed that the evidence now in the record on the relevant product market issue is much the same as it would be at trial and that the record is adequate for deciding the relevant product market issue on the cross summary judgment motions.[2] I agree.

I have relied on evidence submitted by the parties as undisputed, and this evidence consists in large part of information and data from the Government itself or from third parties: (1) documents prepared with the official sanction and approval of various agencies of the Government; (2) the affidavits and deposition testimony of present or former Government employees, including those who were responsible for the Government documents referred to above; (3) admissions and answers to interrogatories given by the Government in this litigation, as well as market share stipulations; and (4) depositions and affidavits of third parties based on personal knowledge, including independent sweetener distributors and brokers as well as food and beverage processors.

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[2] Tr., Hearing on Motions for Summary Judgment at 22, 43 (April 1, 1987). There have been numerous depositions of executives of both defendants and Government officials, as well as depositions of several third parties. Both sides also have made extensive use of interrogatories, requests for documents and requests for admissions. In addition, pursuant to pretrial scheduling orders, each party has served a statement of factual contentions, provided statements of the expected testimony of expert witnesses in accordance with Fed. R. Civ. P. 26(b)(4)(A)(i), and exchanged lists of all persons expected to be called as witnesses at the trial, which was scheduled to commence in September 1987. The record before the court also includes stipulated market share data.

The evidentiary facts now available in the record are unusually extensive, particularly in regard to basic economic data. For example, the parties entered into a 26-page stipulation of detailed market share information with a breakdown reflecting four different approaches to the scope of the relevant market. The record also includes numerous reports and publications containing economic data and analyses prepared by personnel concerned with sweeteners in the United States Department of Agriculture (USDA), such as economists in the Economic Research Service of USDA.

For years, the Government has monitored and regulated sweeteners through a far-reaching and complex set of regulations generally called the "U.S. Sugar Program," which has been implemented in large part by USDA. As a result of the U.S. Sugar Program, the USDA as well as other agencies of the Government have issued numerous publications containing economic data and analyses. One of the more informative publications is entitled "Sugar and Sweetener Outlook and Situation Report," which is now published by USDA in March and September of each year and is supplemented annually by another report entitled "Sugar and Sweetener Outlook and Situation Yearbook." These documents and related deposition testimony are admissible as party-opponent admissions under Fed. R. Evid. 801(d)(2)(D). *United States v. American Tel. & Tel. Co.*, 498 F. Supp. 353, 356-58 (D.D.C. 1980).[3]

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[3] Both parties have relied on these USDA reports. *E.g.*, Defendants' Deposition Exhibit 2 ("DDX 2"); DDX 3-15. Excerpts are included in defendants' Attachments ("Def. Att.") and Supplemental Attachments ("Def. Supp. Att.") submitted with defendants' motion for summary judgment. The Government has also relied on the USDA's Sugar and Sweetener Outlook and Situation Report. Its cross-motion for summary judgment is accompanied by a volume of 58 documents consisting of affidavits and other documents included in the record as Government Deposition Exhibit ("GDX") or "Attachments" (Pl. Att."). Attachment 54, for

SWEETENERS AND THEIR MARKETING

A publication of the USDA identifies the sweetener market in the United States as follows:

> The sweetener market consists of caloric and non-caloric sweeteners. Caloric sweeteners include beet sugar, cane sugar, corn sirup [glucose], dextrose, new high fructose corn sirup [HFCS], honey, edible molasses, maple sirup, sugarcane sirup and sorghum sirup. The non-caloric sweeteners consist of saccharin . . . and aspartame.[4]

The great bulk of caloric or nutritive sweeteners consists of cane sugar, beet sugar and corn sweeteners (glucose, dextrose and HFCS). Non-caloric or non-nutritive sweeteners, sometimes called "artificial" or "diet" sweeteners, have little or no caloric value and consist primarily of saccharin and aspartame.[5] The court's conclusion that the relevant market is not limited to HFCS because it includes sucrose made from sugarcane and sugarbeets makes it unnecessary to decide whether the relevant product market is broad enough to include any other sweeteners, such as aspartame or saccharin.

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example, is a graph (reproduced later in this memorandum opinion) based on data published in USDA's Sugar and Sweetener Outlook and Situation Report. Referring to this type of report, an economist from USDA testified that it has "the official sanction and approval of the USDA prior to publication." Barry Dep. at 105.

[4] Bohall, et al., The Sugar Industry's Structure, Pricing and Performance, Economic Research Service, USDA Economic Report No. 363, at 1 (March 1977). The complete report is in the record as DDX 63, and exeerpts were included in Def. Att. 40. This document is a comprehensive report, 114 pages in length, and includes numerous statistical tables and graphs.

[5] In 1970, the use of cyclamates in the United States was banned by the Federal Food & Drug Administration because of health concerns. DDX 31 at 551; Def. Att. 13.

Production of Sweeteners

(1) *Cane sugar.* This type of sweetener is produced from sugarcane, a tall perennial grass grown in tropical and semi-tropical climates. Two to four crops (ratoon crops) are harvested from the original planting in the absence of frost or disease, and each crop matures in 12 to 24 months.

Sugarcane must be processed into raw sugar within hours after the cane is cut in order to maximize juice extraction and avoid a chemical breakdown of the sucrose. Such processing occurs at "sugar mills" that are located on or near sugarcane plantations. In these mills, the juice from the cane stalk is extracted, clarified, boiled and crystalized into "raw sugar," a world-wide commodity that is processed into refined cane sugar at cane refineries. Traditionally, about 70% of the refined sugar consumed in the mainland of the United States is provided by cane refineries, and historically a substantial portion of such refined cane sugar (approximately 50% in 1982) has been produced from imported raw sugar.[6]

(2) *Beet sugar.* This type of sweetener, like cane sugar, is a form of sucrose. However, it is derived from sugar beets, a cool weather agricultural product that can be grown in the colder climates of Minnesota, Montana, North Dakota and Idaho as well as the warmer climates of California, southwestern Kansas, southern Colorado and parts of Texas. The growing season allows plantings in the early spring and harvesting in the fall.

Unlike sugarcane, beets cannot be converted into raw sugar which can be shipped great distances and stored for an extensive period of time before refining. Instead, the processing of beets into refined sugar is accomplished in one continuous process at a beet refinery.[7]

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[6] Sugar: Background for 1985 Farm Legislation, USDA Bull. 478, at 2-12 (Sept. 1984) (DDX 3, Def. Att. 21).

[7] *Ibid.*

(3) *Corn sweeteners.* A variety of sweeteners can be produced from corn. The United States is the world's leading producer of corn, and No. 2 Yellow Corn (grown in the corn belt states, including Iowa, Nebraska, Illinois and Indiana) is especially useful in the production of sweeteners. Unlike cane and beets, corn can be stored for a substantial period of time without serious deterioration. This allows the processing of corn sweeteners on a year-round basis.

Corn sweeteners are produced in corn wet milling plants which typically make three types of corn-derived sweeteners: (1) glucose (sometimes called regular corn syrup); (2) dextrose (some times called corn sugar); and (3) HFCS. These plants also produce other corn-derived products, such as corn starch, starch-derived dextrin, and several other "byproducts" such as corn oil, corn gluten meal, corn gluten feed and steep water concentrate.

It was not until the early 1970's that new technology was in widespread commercial use to process glucose or dextrose syrup into a sweeter product by the use of enzymes capable of isomerizing syrup into fructose. This isomerization process is used today, either directly or by blending, to produce corn syrup containing 42% fructose ("HFCS-42"), 55% fructose ("HFCS-55"), and 90% fructose ("HFCS-90"). Although HFCS 42 is not as sweet as sugar, it may be used as a substitute or partial substitute for sugar in sweetening various products, such as canned fruits and vegetables. HFCS-55, the most popular corn sweetener used by soft drink bottlers (such as Coca Cola), is approximately 94% to 95% as sweet as sucrose.[8]

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[8] This summary of the production of corn sweeteners is based largely on a memorandum on corn wet milling prepared in the Department of Justice, November 29, 1979. Def. Att. 8. *See also* Def. Supp. Att. 14, at ¶ 8 on the sweetness of NFCS-55 as compared to sugar.

Distribution of Sweeteners

In the distribution of sweeteners to large processing companies, such as the major soft drink bottlers or other substantial food processing companies, the selling function is usually performed directly by sales personnel employed by a sweetener manufacturer to call on those accounts. For small to medium-sized sweetener users, of which there are many in the United States, the selling function is often performed by a group of specialized vendors. These are independent companies known as sweetener distributors or brokers. A sweetener distributor purchases outright all types of nutritive sweeteners, such as sugar, glucose and HFCS, and thereafter resells those products to users. A broker covers the same range of sweeteners, but serves as a selling agent or representative of several sweetener manufacturers and sells at prices and terms set by each supplier.[9]

Brokers and distributors may operate "blending" facilities, which can be used to convert dry sugar into liquid form and then blend it with one or more varieties of corn sweeteners, such as regular corn syrup, HFCS-42, or HFCS-55.[10] Blends of sweeteners are often used by fruit and vegetable canners, and where the canning plant does not have its own blending equipment, the independent distributor or broker with blending facilities is able to supply a sweetener blend containing the particular

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[9] For example, the record shows that Liquid Sugars, Inc., based in Emeryville, California, is a sweetener distributor. *See* Saroni Affidavit, Pl. Att. 13 at 1. Pierson-Pelzman, Inc. in Waukesha, Wisconsin, serves as a broker or selling agent for as many as eight different sweetener manufacturers that produce beet and cane sugar, as well as various corn sweeteners. This brokerage company operates primarily in the state of Wisconsin and sells sweeteners to over 100 different accounts. *See* Pelzman Dep. at 5-6, 9, 18.

[10] Pelzman Dep. at 7-8. *See also* DDX 11 at 13; Def. Att. 11.

combinations of various types of sweeteners desired by the canner.[11]

U.S. Sugar Program

The United States has always been an importer of sugar, and hence the Government has been involved in the sugar trade for many years. This involvement began in 1789 with the imposition of a tariff on raw sugar to help raise revenue, and it continued as a revenue-raising device until 1934.

In 1934 growers of sugarcane and sugarbeets in the United States were suffering from severe economic distress, and Congress enacted The Sugar Act of 1934 to provide them with protection from low-priced imported sugar. This was the beginning of the "U.S. Sugar Program," which in 1934 included both direct subsidy payments to growers and a processing tax on refined sugar. With various amendments, the basic form of the U.S. Sugar Program developed in 1934 remained in effect through December 1, 1974. At that time, Congress allowed the U.S. Sugar Program to expire and failed to enact any new legislation to pay subsidies to domestic growers of cane or beets.

After a precipitous decline in sugar prices in 1976, Congress enacted the Food and Agriculture Act of 1977. This legislation provided price supports for both sugarcane and sugarbeets, which were to be implemented through government loans or purchases at prices equal

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[11] For example, Mr. Clifford Nagle, Vice President-Purchasing of Tri-Valley Growers, Inc., testified at his deposition that Tri-Valley Growers has used various blends of sweeteners for its canned fruits and vegetables. Since 1981, Tri-Valley has used a blend consisting of 10% sugar, 40% canners' grade regular corn syrup, and 50% HFCS. Tri-Valley produces canned peaches at three or four different plants, some of which have blending capability whereas other do not. Those not having such facilities must purchase a pre-blended sweetener containing the required proportions of the various sweeteners in the formula. Nagle Dep. at 19, 38.

to specified percentages of the "parity" price. However, the program provided by this legislation did not go into effect immediately, and market prices for sugar were adequate to sustain the 1980 and 1981 crops of domestic growers at or above the parity price. Hence, no price support program for sugar was in effect for those years.

The next U.S. Sugar Program was created by the Food and Agriculture Act of 1981. It provided for a non-recourse "loan program" implemented by the USDA in establishing a "loan rate" for raw cane sugar (with a parity formula for beet sugar), coupled with a "market stabilization price" and the imposition of flexible duties, import fees and specific quotas on raw sugar imported into this country. Under this program, the federal government has often imposed duties and import fees at maximum levels, and has established import quotas at low levels for the purpose of restricting the supply of imported sugar and thereby driving up the price of domestic sugar to an artificially high level at or above the "loan rate." This program remained in effect through 1985, and essentially the same form of program was continued when Congress enacted the 1985 Farm Act, which will automatically expire by its own terms in 1990.[12]

The future of the current U.S. Sugar Program is uncertain. On December 15, 1986, the USDA announced that the current Administration will seek new legislation in 1987 to terminate the existing Sugar Program before the scheduled expiration in 1990 and to make "fundamental changes" for the future. The details of the Administration's proposal to reform the Sugar Program and the underlying need for change were explained later in the 1987 Report of the President's Council of Economic Advisors (CEA):

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[12] The history of the U.S. Sugar Program is outlined in Sugar: Background for 1985 Farm Legislation, USDA Vull. 478, at 32-38 (Sept. 1984) (DDX 3; Def. Att. 21).

> The 1985 [Farm] Act has continued to impose waste and economic losses on the American economy . . . especially sugar and dairy. Over much of the 1980's, taxpayer costs of [such] government programs . . . have been at record levels.[13]

The CEA also criticized the U.S. Sugar Program for its devastating economic effects on America's friendly trading partners in Latin America and the Philippines, whose economies have suffered losses in the billions. For these reasons:

> The Administration also proposes changes in the U.S. Sugar Program to deal with distortions generated by current policy. The proposed reform would lower the price-support loan rate [from 18 cents] to 12 cents a pound while providing transition payments to cane and beet producers over a four year period. Prices paid by domestic sugar consumers will fall as a result. By modifying the incentives that distort domestic production and consumption, U.S. sugar policy moves slowly toward a more market-oriented position.[14]

The changes now being pursued by the Administration would cause domestic sugar prices to move much closer to the lower world sugar prices.

There is also uncertainty concerning the form that the U.S. Sugar Program might take in the future, if there is one. An official notice placed by the Secretary of Agriculture in the Federal Register at a time when no sugar program was in effect and when various options were being considered, identified three different approaches: direct subsidy payments to farmers with only limited control of domestic market prices; a "non-recourse loan program" of the type currently in effect with tight con-

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[13] Def. Supp. Att. 12, Ex. C at 155 (Jan. 1987).

[14] *Id.*

trols to inflate domestic prices in order to avoid losses by the government on loans in default; and no program at all.[15] The various approaches would have differing effects on the dynamics of the sweetener market and the domestic price of sugar.

The parties to this litigation agree that the current U.S. Sugar Program has artificially inflated the price of sugar, and as a result, the domestic price of sugar has been higher than the price of HFCS.[16] The undisputed evidence shows that both before and after the lease agreement of June 1982, HFCS prices have generally reflected a discount of 10 to 30% off the price of sucrose (cane sugar and beet sugar).[17]

POSITIONS OF PARTIES ON RELEVANT PRODUCT MARKET

Defendants assert that, at the very least, the relevant product market includes sugar derived from cane and beets as well as HFCS, and may encompass all sweeteners including aspartame and saccharin. The Government contends that one type of corn sweetener—high fructose corn syrup (HFCS)—stands alone in a separate market. Thus,

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[15] *See* Bohall, Memorandum for the Secretary of Agriculture, at 3-9 (April 2, 1981) (DDX 40; Def. Att. 43).

[16] *See* Plaintiff's Statement of Material Facts As to Which There Is No Genuine Issue to Be Tried, ¶ 10: "The price of sucrose has generally been and will remain significantly higher than the price of HFCS as a result of the government's Sugar Program . . . ." *See also* Defendants' Statement of Material Facts As to Which There Is No Genuine Dispute, at ¶ 10: "Plaintiff [Government] currently imposes a regulatory system (the 'U.S. Sugar Program') that effectively raises domestic sugar prices substantially above world market levels."

[17] A USDA memorandum in 1981, a year prior to the lease, noted that "HFCS is a low cost sweetener which is competitive with sugar . . . and is priced 15 to 30 percent less than sugar." (DDX 79 at 2; Def. Att. 42). *See also* Proctor Aff. ¶ 4, Pl. Att.

the Government's position is that the relevant product market *excludes* cane sugar, beet sugar, glucose and dextrose, as well as all diet sweeteners.

There is no dispute that if the relevant market includes either cane sugar or beet sugar, then both types of sugar must be included. Similarly, neither party contends that the relevant market, whether it consists of HFCS alone or other sweeteners as well, should be fragmented into separate sweetener markets or submarkets for each major category of food or beverages using sweeteners. This is consistent with the evidence showing that sugar (cane and beet) and corn sweeteners are used, in varying degrees, in all major categories of foods and beverages, as illustrated by the following schedule:

Percent of Total Caloric *Sweetener Use* [18]

Category of Use	In 1982		Long-Term Theoretical Penetration	
	HFCS	Sugar and All Other Caloric	HFCS	Sugar and All Other Caloric
Beverages	36	64	90	10
Baking	24	76	26	74
Canning	61	39	70-75	25-30
Processed Foods	48	52	60-66	34-40
Dairy Products	31	69	36	64
Confections	1	99	5	95

[18] Source: National Food Review, USDA Economic Research Service at 10 (Aug. 1983) (DDX 34; Def. Att. 11). The data in the record from which this schedule is derived shows separately the percent of use of HFCS in each of the indicated categories of foods and beverages, and the data shown for "sugar and all other caloric" sweeteners are derived by substracting from 100% the applicable percent for HFCS alone. This category for "sugar and all other calorie" includes not only sugar, but also two types of caloric corn sweeteners (glucose and dextrose). Since glucose and dextrose are used in significant quantities in canning, dairy products, and confections, the percentage of use of *all* corn sweeteners

The record before the court includes stipulated market-share data relating to four possible relevant product markets: (1) HFCS alone (as alleged by the Government); (2) HFCS plus sucrose; (3) all nutritive sweeteners; and (4) all sweeteners. Although such data are not directly pertinent to delineating the relevant market, they do serve to underscore that the parties are here seeking adjudication of a major and dispositive issue in this antitrust case. As noted on page 1 of this memorandum opinion, an essential element of both of the alleged antitrust violations is proof of injury to competition in the relevant market.

The Department of Justice has issued Merger Guidelines which endorse the Herfindahl-Hirschman Index ("HHI") test for determining whether a proposed merger will produce the requisite injury to competition. Under these Guidelines, as amended in 1984, any relevant market in which the post-merger HHI is below 1,000 points is considered to be "unconcentrated," and a merger in such a market will therefore not be challenged by the Department of Justice except in extraordinary circumstances. *See* DOJ 1984 Merger Guidelines § 3.11(a), *reprinted in* 2 Trade Reg. Rep. (CCH) ¶ 4493.101(a). Even in relevant markets having a post-merger HHI between 1,000 and 1,800 points, the Department is not likely to challenge a merger that causes an increase in HHI of less than 100 points in such a market. Id. at ¶ 4493.101(b). Accordingly, any merger that has a post-merger HHI of less than 1,000 points, and does not increase the HHI by 100 points, is well within a "safe harbor" of legality.

The market share stipulations of the parties (Def. Att. 54) include the following data:

(HFCS, glucose and dextrose) would be greater than those shown in the schedule above for HFCS alone.

	All Sweeteners	All Nutritive Sweeteners (Sucrose + All Corn Sweeteners)	Sucrose + HFCS Only	HFCS Only
1983 post-lease HHI	634	706	741	2071
1981 pre-lease HHI	601	641	742	1737
HHI change 1981 to 1983	+33	+65	−1	+334

Thus, in any relevant market that includes both HFCS and sucrose, the lease is in a "safe harbor" because the *maximum* HHI after the lease is far below 1,000 points (634 to 741) and the *maximum increase* in the HHI after the lease is only 65 points. Indeed, in a relevant market consisting of only HFCS and sucrose, the post-lease HHI is actually *lower* than that which prevailed prior to the lease. Except for the alleged market limited to HFCS alone, the stipulated data on market concentration are inconsistent with antitrust injury to competition attributable to the ADM/Nabisco lease.[19]

STANDARDS FOR GRANTING SUMMARY JUDGMENT

Part (c) of Fed. R. Civ. P. 56, the summary judgment rule, provides in part: "The judgment sought shall be rendered forthwith if the pleadings, depositions, answers to interrogatories, and admissions on file, together with the affidavits, if any, show that there is no genuine issue

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[19] Government counsel, Mr. McNeely, recognized this at oral argument:

> THE COURT: You do agree that if I agreed with defendants as to the relevant product market, that ends the lawsuit.
> MR. McNEELE: Yes.

Tr. at 46 (April 1, 1987).

as to any material fact and that the moving party is entitled to a judgment as a matter of law."

In recent years numerous types of antitrust issues have been decided on summary judgment.[20] Here, the parties seek summary judgment on the relevant product market, and this, too, is an issue that can appropriately be decided on summary judgment.[21]

Two 1986 decisions of the Supreme Court have reenforced the utility of summary judgment in complex litigation after the parties have had ample time for discovery. In *Celotex Corp. v. Catrett*, 106 S. Ct. 2548

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[20] Illustrative examples of such issues are: (1) whether expulsion from a cooperative buying group is a *per se* illegal boycott, *Northwest Wholesale Stationers, Inc. v. Pacific Stationery & Printing Co.*, 472 U.S. 284 (1985); (2) whether the alleged misconduct is protected by antitrust immunity as "state action," *Commuter Transportation Systems, Inc. v. Hillsborough County Aviation Authority*, 801 F.2d 1286 (11th Cir. 1986); *Costal Neuro-Psychiatric Associates v. Onslow Memorial Hospital, Inc.*, 795 F.2d 340 (4th Cir. 1986); (3) whether the plaintiff has "standing" to bring an antitrust treble damage case, *Bubar v. Ampco Foods, Inc.*, 752 F.2d 445 (9th Cir.), *cert. denied*, 472 U.S. 1018 (1985); *Province v. Cleveland Press Pub. Co.*, 787 F.2d 1047 (6th Cir. 1986); (4) whether evidence in the record on summary judgment fails to show the requisite injury to competition, *Mid-South Grizzlies v. National Football League*, 720 F.2d 772 (3d Cir. 1983); (5) whether the evidence establishes an exclusive dealing arrangement, *Famous Brands, Inc. v. David Sherman Corp.*, 814 F.2d 517, 524 (8th Cir. 1987).

[21] *Thurman Industries, Inc. v. Pay' N Pak Stores, Inc.*, 1987-1 Trade Cas. (CCH) ¶ 67,591 at pp. 60,544-46 (W.D. Wash. May 27, 1987); *Consul, Ltd. v. Transco Energy Co.*, 805 F.2d 490, 493-95 (4th Cir. 1986); *Jayco Systems, Inc. v. Savin Business Machines Corp.*, 777 F.2d 306, 318-20 (5th Cir. 1985), *cert. denied*, 107 S. Ct. 73 (1986); *Ralph C. Wilson Industries, Inc. v. American Broadcasting Co.*, 598 F. Supp. 694 (N.D. Cal. 1984), *aff'd*, 794 F.2d 1359 (9th Cir. 1986); *In re Municipal Bond Reporting Antitrust Litigation*, 672 F.2d 436 (5th Cir. 1982). *See also The Supreme Court, 1985 Term: Summary Judgment*, 100 Harv. L. Rev. 100, 250-58 (1986).

(1986), the Supreme Court held that Fed. R. Civ. P. 56 does not require the moving party to negate every argument in the opponent's claim because

> the plain language of Rule 56(c) mandates the entry of summary judgment, after adequate time for discovery and upon motion, against a party who fails to make a showing sufficient to establish the existence of an element essential to that party's case, and on which that party will bear the burden of proof at trial.

Id. at 2552-53. The Court reasoned that whenever an essential element in the opposing party's case is missing, this "necessarily renders all other facts immaterial." *Id.* at 2553. Thus, if there is undisputed evidence that is sufficient as a matter of law to negate an essential element in the opposing party's case, it becomes legally irrelevant that there is some disputed evidence either on that element or on any other material fact. *Id.*

The *Celotex* approach to summary judgment is applicable to antitrust cases. The Court applied the same principles in *Matsushita Electric Industrial Co., Ltd. v. Zenith Radio Corp.*, 106 S. Ct. 1348 (1986), an antitrust case in which the key issue was whether a group of Japanese manufacturers had entered into an antitrust conspiracy to fix unreasonably low prices on electronic products sold in the United States. The Third Circuit had overturned the district court's granting of summary judgment on the ground that the alleged conspiracy was an issue of fact which it believed should have been resolved by the jury, as the underlying evidentiary facts tended to support inferences in both directions. The Supreme Court reversed, holding that because part of the underlying evidentiary facts not in dispute showed that defendants' conduct was just as consistent with lawful independent action as it was with an alleged unlawful antitrust conspiracy, the record was insufficient as a mat-

ter of law to support an inference of conspiracy, the ultimate fact issue in the case. 106 S. Ct. at 1357.[22]

In this case the court is satisfied, based on a review of the summary judgment record and the above cases, that the issue of the relevant product market can and should be resolved on the summary judgment record.

THE RELEVANT PRODUCT MARKET

The alleged anticompetitive effects of the lease challenged by the Government in this lawsuit must be evaluated in a "relevant market" that has both product and geographic dimensions. As the Supreme Court has observed:

> Without a definition of that market, there is no way to measure [the] . . . ability [of the challenged transaction] to lessen or destroy competition.

Walker Process Equipment, Inc. v. Food Machinery & Chemical Corp., supra, 382 U.S. at 177. In this case, the parties agree that the geographic scope of the relevant market is nationwide. Accordingly, the only issue before the court concerns the product or products included in that market.

Principal Legal Tests for Defining the Relevant Product Market: Interchangeability of Use, Cross-Elasticity of Demand, and Price Correlation

In deciding the issue of the relevant product market in this case, this court has applied the tests of interchangeability of use, cross-elasticity of demand, and price correlation. These are the principal tests that have been adopted by the Supreme Court, *e.g., Brown Show Co. v. United States,* 370 U.S. 294, 325 (1962); *United States*

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[22] A similar analysis was used by this court to reach the same conclusion in *Impro Products, Inc. v. Herrick,* 1982-2 Trade Cas. (CCH) ¶ 64,906 (S.D. Iowa 1982), *aff'd,* 715 F.2d 1267 (8th Cir. 1983), *cert. denied,* 465 U.S. 1026 (1984).

v. E. I. Du Pont de Nemours & Co., 351 U.S. 377 (1956) ("*Cellophane* case"); *United States v. Continental Can Co.*, 378 U.S. 441 (1964); by the Eighth Circuit, *United States v. Empire Gas Corp.*, 537 F.2d 296, 303-04 (8th Cir. 1976), *cert. denied*, 429 U.S. 1122 (1987); *General Industries Corp. v. Hartz Mountain Corp.*, 810 F.2d 795 (8th Cir. 1987); by other courts of appeals, *American Crystal Sugar Co. v. Cuban-American Sugar Co.*, 259 F.2d 524 (2d Cir. 1958); *SmithKline Corp. v. Eli Lilly & Co.*, 575 F.2d 1056 (3d Cir.), *cert. denied*, 439 U.S. 594 (1978); and also by this court, *Schaben v. Samuel Moore & Co.*, 462 F. Supp. 1321, 1334 (S.D. Iowa 1978), *aff'd*, 606 F.2d 831 (8th Cir. 1979).

The court's conclusions on the relevant product market, as set forth below, rest upon the combined effect of its findings under all of these tests, and not just on one test alone. As the Eighth Circuit has noted, "functional interchangeability" of two or more products is "germane to the inquiry" on the relevant product market, but "the inquiry does not end there." *Empire Gas*, 537 F.2d at 303. Rather, the inclusion of a product in the relevant market along with other substitutes also "depends on the cross-elasticity of demand for that product," which focuses on the "ability of consumers to turn to reasonable alternatives to the product in question." *Id.*

The closely related tests of interchangeability and cross-elasticity were established in the *Cellophane* case, where the government argued for a relevant market limited to cellophane and for the exclusion of all other flexible wrapping materials that were substitutes for cellophane. In rejecting a market limited to cellophane, the Court observed that, under the government's theory, "only physically identical products would be part of the market," whereas "[w]hat is called for is an appraisal of the 'cross-elasticity' of demand in the trade." *Cellophane*, 351 U.S. at 394.

Evidence of cross-elasticity consists of changes in sales volume of two substitutes in response to changes in relative prices. If there is a price decrease in one of two substitutes, which results in a decrease of sales in the other product whose price does not change, this shows cross-elasticity. Similarly, cross-elasticity between two products is evidenced by an increase in the sales volume of one of the products as a result of an increase in the price of the other. *SmithKline Corp. v. Eli Lilly & Co.*, 575 F.2d 1056, 1063 (3d Cir.), *cert. denied*, 439 U.S. 838 (1978); *United States v. Empire Gas Corp.*, 537 F.2d 298, 306 (8th Cir. 1976).

The test of price correlation or price sensitivity is closely related to cross-elasticity of demand. This correlation test focuses on whether prices of two substitute products tend to move together over time so that any price differential between them tends to be much the same on a percentage basis. This principle was applied in *American Crystal Sugar Co. v. Cuban-American Sugar Co.*, 259 F.2d 524 (2d Cir. 1958). There, the Second Circuit rejected the contention that a price differential between cane sugar and beet sugar placed the two products in separate sweetener markets because "[s]ensitivity to price change, not price differential, is usually regarded as a proper element to measure cross-elasticity of demand" which places two interchangeable products in the same relevant market. *Id.* at 530.

The *Cellophane* decision also teaches that, in defining a relevant market where the evidence shows that several substitute products can fulfill the same function, it is useful to consider whether a particular product (cellophane) has fulfilled such function across a broad range of end uses. In *Cellophane*, the Court noted that "cellophane furnishes less than 7% of wrapping for baking products, 25% for candy, 32% for snacks [etc.] . . . [s]eventy-five to eighty percent of cigarettes," and it was further noted that "overall . . . cellophane accounts for 17.9% of flex-

ible wrapping materials, measured by the wrapping surface." 351 U.S. at 399. The comparable data in this case are set forth earlier in this opinion, *supra*, p. 11, and show that HFCS and sugar fit this same pattern by sharing sweetener usage to varying degrees across a broad range of food and beverage products.

Other leading cases show that consumer tastes and preferences are relevant in considering the quality aspects of interchangeable products selling at different prices for use in a finished product. For this reason, it is not decisive that some users decide to produce a finished product having particular characteristics that can best be provided by a higher-priced raw material as compared to lower-priced materials, because "price is only one factor in a user's choice" in selecting such a material. *United States v. Continental Can Co.*, 378 U.S. 441, 455 (1964). In *Continental Can*, the evidence showed a substantial price difference between glass containers and metal cans, but the Court held that an "equally important" consideration was consumer preference:

> The consumer, for example, may begin to prefer one type of container over the other and the manufacturer of baby food [metal] cans may therefore find that his problem is the housewife rather than the packer or the price of his cans.

Id. at 455-56. The Court then observed that "[t]his may not be price competition but it is nevertheless meaningful competition between interchangeable containers." *Id.* at 456.

Although evidence defining the market varies from case to case, the legal "tests are constant," and each relevant "market is composed of products that have reasonable interchangeability for the purposes for which they are produced—price, use and qualities considered." *Cellophane*, 351 U.S. at 404.

Legal Tests to Determine Whether There Is an Economically Significant Submarket

In *Brown Shoe, supra,* the Court reaffirmed that the principal tests of product market definition are "reasonable interchangeability of use or the cross-elasticity of demand" of substitutable products. 370 U.S. at 325. The Court also identified certain other tests that could be considered to determine if there is an "economically significant submarket." *Id.*[23] As applied to the summary judgment record in this case on the relationship between sugar and HFCS, these would include such tests as "distinct customers, distinct prices . . . and specialized vendors." *Id.* Because the Government's cross-motion relies so heavily on "distinct prices," the court has given special consideration to the precedents on that test.

At the outset, it is significant that the relevant market in *Cellophane* included all flexible wrapping materials even though such materials had a very wide range of price differentials. The Court upheld this definition of the market knowing that the undisputed evidence showed that du Pont's price for cellophane was "two or three times as much, surface measure, as its chief competitors" selling other wrapping materials. 351 U.S. at 401. As explained by the Court:

> The selling price between commodities with similar uses and different characteristics may vary, so

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[23] As the Ninth Circuit has noted, the question "[w]hether or not a court is justified in carving out a submarket depends ultimately on whether the factors which distinguish one purported submarket from another are 'economically significant' in terms of the alleged anticompetitive effect." *International Tel. & Tel. Corp. v. General Tel. & Electronics Corp.,* 518 F.2d 913, 932 (9th Cir. 1975); *M.A.P. Oil Co. v. Texaco, Inc.,* 691 F.2d 1303, 1307 (9th Cir. 1982). For this reason, the "standard market tests," such as product interchangeability and cross-elasticity, may not be "abandoned or ignored and replaced with a less demanding 'submarket test'." *White & White, Inc. v. American Hospital Supply Corp.,* 723 F.2d 495, 502 (6th Cir. 1983).

> that the cheaper product can drive out the more expensive . . . . Cellophane costs more than many competing products and less than a few. But whatever the price, there are various flexible wrapping materials that are bought by manufacturers for packaging their goods in their own plants or are sold to converters who shape and print them for use in the packaging of the commodities to be wrapped.[24]

The Eighth Circuit has subscribed to the *Cellophane* approach to the legal significance of a price differential in defining the relevant market. In *Acme Precision Products, Inc. v. American Alloys Corp.*, 484 F.2d 1237 (8th Cir. 1973), it was argued that high-strength aluminum alloy was in a relevant market separate from other alloys because it had unique metallurgical characteristics, was protected by a patent, and sold at a consistently higher price. The court held that all of these differences, including the price differential, were not enough to create a separate market:

> Defendant urges that Almag 35 and Amalloy are the "cream" of the market as shown by plaintiffs' patent and plaintiffs' own advertisting. But this argument is not convincing in view of the overall record of competitive interchangeability of all alloys marketed.

Id. at 1244.

The same approach was taken by Judge Stuart of this court in *Schaben v. Samuel Moore & Co.*, 462 F. Supp. 1321 (S.D. Iowa 1978). There, citing *Cellophane*, Judge Stuart reached the "inescapable conclusion . . . that the

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[24] *Id.* at 396. Indeed, Appendix C of the Court's opinion in *Cellophane* showed that the price for Saran (one of the flexible packaging materials included in the relevant market) was 6.1¢ per 1,000 square inch, whereas plain waxed sulphite #25 coated opaque (also in the relevant market) was only 0.7¢ per 1,000 square inches. Thus, the price of Saran was 771% greater than the price of the other product in the same relevant market. 351 U.S. at 412.

relevant product market encompassed hydraulic hose—including rubber wire braid and synthetic hose—not just synthetic hose." *Id.* at 1334. This conclusion was compelled because "the two types of hose were interchangeable for all practical purposes," and it was immaterial that "synthetic hose initially was somewhat cheaper, although it later rose in price." *Id.*

Similarly, in *Kaplan v. Burroughs Corp.*, 611 F.2d 286 (9th Cir. 1979), *cert. denied*, 447 U.S. 924 (1980), the Ninth Circuit affirmed the district court's judgment n.o.v. for defendant because plaintiff had failed to present sufficient probative evidence in support of the alleged relevant market. Plaintiff's theory of the relevant market was based upon an alleged price differential between certain types of computer equipment, and while the court agreed that a "price differential between competing products and services is a relevant factor to consider," the court rejected plaintiff's position because a "price differential alone does not govern the scope of the relevant market." *Id.* at 292.

In line with the *Cellophane* rule, several other courts of appeals have joined the Eighth Circuit in holding that interchangeable products with cross-elasticity of demand are in the same product market despite persistent patterns of differential pricing. *See, e.g., Nifty Foods Corp. v. Great Atlantic & Pacific Tea Co.*, 614 F.2d 832, 840-41 (2d Cir. 1980) (brand name and private label waffles); *Liggett & Myers, Inc. v. FTC*, 567 F.2d 1273, 1274-75 (4th Cir. 1977) ("premium" and "economy" canned dog food); *George R. Whitten, Jr., Inc. v. Paddock Pool Builders, Inc.*, 508 F.2d 547, 553-54 (1st Cir. 1974), *cert. denied*, 421 U.S. 1004 (1975) (conventional and "pipeless" recirculation systems for pools); *Bendix Corp. v. Balax, Inc.*, 471 F.2d 149, 161-62 (7th Cir. 1972); *cert. denied*, 414 U.S. 819 (1973) (swaging taps and cutting taps).

Cases relied on by plaintiff are distinguishable. For example, the Government places great reliance on footnote 31 in *Times-Picayune Publishing Co. v. United States*, 345 U.S. 594, 612 n.31 (1953), which referred to hypothetical "variations in price" that might result in a "limited number of buyers" of a substitute product. The Court's decision in *Times-Picayune* preceded *Cellophane* and involved an alleged tie-in, rather than a merger. More importantly, footnote 31 was appended to the Court's discussion in the text emphasizing that the evidentiary record in *Times-Picayune* "contains no evidence which could circumscribe a broader or narrower 'market' defined by" other factors. *Id.*[25] The record in this case is quite different, since it includes undisputed evidence on interchangeability, cross-elasticity and price correlation.

The Government also cites *United States v. Aluminum Company of America*, 377 U.S. 271 (1964) ("*Rome Cable* case"). There, the Court reached its decision on the relevant product market after expressly finding that, as to the two products in question, "prices do not respond to one another." *Id.* at 276. Here, the evidence establishes that the prices of HFCS and sugar are highly correlated, with HFCS prices following sugar prices.

Plaintiff Has Burden of Proof

The plaintiff has the burden of proof on the relevant market. As the Eighth Circuit has stated:

> As a prerequisite to recovery [on an antitrust claim] . . . plaintiffs must properly delineate the relevant

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[25] This same lack of evidence in the record distinguishes *Reynolds Metals Co. v. FTC*, 309 F.2d 223 (D.C. Cir. 1962), also cited by the Government. There, the court expressly noted that the record included no direct evidence, one way or the other, on whether two types of aluminum foil were functionally interchangeable, and the court inferred *non*-interchangeability from a price differential. Here, interchangeability is undisputed.

market, which is comprised of a product and geographic market.

Morton Bldgs. of Nebraska, Inc. v. Morton Bldgs., Inc., 531 F.2d 910, 918 (8th Cir. 1976). This is a well-established rule in this jurisdiction. *E.g., General Industries Corp. v. Hartz Mountain Corp.*, 810 F.2d 795, 804 (8th Cir. 1987) ("the plaintiffs must have demonstrated the relevant geographic and product markets"); *United States v. Empire Gas Corp.*, 537 F.2d 296, 302 (8th Cir. 1976).

Legal Tests Applied to the Record

The Government's position is that the summary judgment record establishes that the relevant product market is limited to HFCS. Defendants' position is that the summary judgment record includes undisputed evidence of interchangeability, cross-elasticity and price correlation between HFCS and sugar and that such evidence, as a matter of law, precludes the Government from establishing a relevant market limited to HFCS. A review of the record shows that the defendants' position is well founded.

(1) *Interchangeability.* It is undisputed by the parties that sugar is interchangeable for virtually every use of HFCS. The Government's Statement of Undisputed Facts sets forth its position on interchangeability as follows:

> 5. HFCS and sugar derived from cane and beets are functionally interchangeable for virtually every known use of HFCS.
>
> 6. Sweetener buyers and sellers recognize that HFCS and sugar are functionally interchangeable for virtually every known use of HFCS.[26]

[26] Plaintiff's Statement of Material Facts As To Which There Is No Genuine Issue to Be Tried at ¶¶ 5 and 6.

The defendants' Statement of Undisputed Facts is almost identical to the Government's"

> 5. HFCS and sugar derived from cane and beets ("sucrose") are functionally interchangeable for virtually every known use of HFCS.[27]

Accordingly, the basic underlying fact of functional interchangeability between HFCS on the one hand, and cane sugar and beet sugar on the other hand, is accepted by both parties. There is no factual issue to be tried concerning such interchangeability.

(2) *Cross-Elasticity.* The term "cross-elasticity" is an economic concept that refers to underlying facts reflecting a tendency of users to switch from one product to a substitute in response to changes in relative prices. In this case, the undisputed evidence on the relationship between HFCS and sugar establishes both parts of the cross-elasticity test.

The first part of the test is satisfied by the evidence showing that, since its commercial introduction in the 1970's, HFCS has been priced generally at a discount of 10% to 30% below the price of sugar. This differential, in practical effect, amounts to a decrease in the price of one substitute while the price of the other is relatively constant.

The second half of the test is established by undisputed evidence showing that the reduced price for HFCS as compared to sugar has led to substantial displacement of sugar. This underlying fact is set forth in the Government's Statement of Undisputed Facts:

> After the commercial introduction of HFCS the demand for sucrose declined as a direct result of the displacement of sugar by HFCS.[28]

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[27] Defendants' Statement of Material Facts As to Which There Is No Genuine Dispute at ¶ 5.

[28] Plaintiff's Statement of Material Facts As to Which There Is No Genuine Issue To Be Tried at ¶ 7. The Government has also

Moreover, data published by the USDA confirm, in an indisputable manner, that the volume of the low-priced substitute (HFCS) has increased, while the volume of the higher-priced substitute (sugar) has decreased.

U.S. CONSUMPTION OF ALL SWEETENERS
(AS A PERCENT OF TOTAL)

	Refined Sugar	HFCS	Glucose	Dextrose	Low Calorie	All Other (Honey, Edible Syrups)
1975	71.8%	4.0%	14.1%	4.0%	4.9%	1.2%
1980	63.0%	14.4%	13.3%	2.6%	5.8%	0.9%
1985	43.2%	29.6%	12.3%	2.4%	11.6%	0.9%

Source: Sugar and Sweetener Outlook and Situation Report, Tables 20 and 21 at pp. 37-38 (Mar. 1986) (DDX 62). Source data in units are shown above as percentages.

Nonetheless, despite the competitive inroads of HFCS due to cross-elasticity, sugar is still the predominant sweetener, accounting for over 43% of all sweeteners consumed in this country in 1985, whereas HFCS had less than 30%.[29]

The recent Canadian experience also confirms the high degree of cross-elasticity between HFCS and sugar. Canada allows unregulated competition between HFCS and sugar at world prices, and when world sugar prices were high in 1981, Canada began production of HFCS as a less expensive alternative sweetener. Between 1981 and 1983, Canadian consumption of HFCS increased while consumption of sugar decreased. Then, in 1984 world

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recognized that there was cross-elasticity up until some recent date which is not identified: "In the past the level of sucrose prices may have, over time, affected the level of HFCS production . . . ." Plaintiff's Statement of Material Facts as to Which There Is a Genuine Issue, at ¶ 4(2).

[29] The comparison for worldwide consumption shows that HFCS has reduced sugar's dominant position to a much lesser degree. In 1982 HFCS accounted for only 4% of the combined consumption of sugar and HFCS in the world. *See* Sugar: Background for 1985 Farm Legislation at 27 (USDA Sept. 1984) (DDX 3).

sugar prices dropped, whereupon Canadian consumption of HFCS fell from 275 million pounds to 84 million pounds between 1983 and 1985, and sugar usage in Canada increased as major users of HFCS switched back to sugar. Thus, in the past few years, Canadian consumption of sugar has moved in exactly the opposite direction from HFCS, showing that Canadians initially shifted some of their usage from sugar to HFCS and then shifted back to sugar in response to lower world prices for sugar.[30]

On undisputed evidence in the record, the court finds cross-elasticity of demand between HFCS and sugar.

(3) *Price Correlation.* The legal criteria for identifying the relevant product market recognize that a high degree of price correlation or price sensitivity between two interchangeable products tends to support the conclusion that there is cross-elasticity of demand and that such products are in the same relevant market.

Here, undisputed evidence in the record shows, and the court finds, an extremely high degree of price correlation and price sensitivity between HFCS and sugar. For example, Ralph F. Ives, an economist in the Department of Commerce, testified at his deposition that he had conducted a price correlation study of HFCS and sugar prices. His conclusions were that HFCS prices are "affected by" and are "highly correlated with" the prices of sugar. Ives Dep. at 60-61. On a numerical basis, Mr. Ives found that the correlation exceeds .90 on a scale where 1.00 would be perfect correlation. *Id.*

In its cross-motion papers, the Government submitted a graph on which the wholesale prices of sugar and

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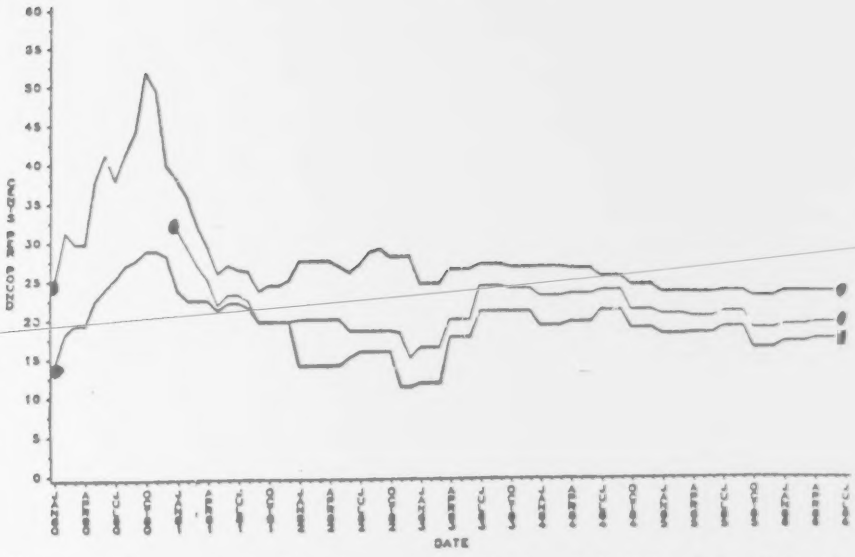
[30] Bateman Aff., Def. Supp. Att. 1, at ¶ 7(b); Newton Aff., Def. Supp. Att. 13(A), at ¶ 8. Canada is now shipping its excess HFCS production into the United States. *See* Sugar and Sweetener Situation and Outlook Report, USDA Bull. 478 at 16 (Sept. 1986) (DDX 3; Def. Att. 21).

HFCS were plotted on a quarter-year basis from January 1980 through July 1986. This graph is reproduced below:

Plaintiff Aff. 54

WHOLESALE PRICES OF SUGAR AND HFCS
(CHICAGO-WEST PRICES)



Source: Sugar and Sweetener: Outlook and Situation Report, USDA

Note: Starting Jan. 1983, All Prices Are Quarterly Averages.

● Sugar ● HFCS-42 ● HFCS-55

The top line of the graph reflects sugar prices, and the bottom line shows prices for HFCS-42, with prices for HFCS-55 being plotted on the middle line. An examination of the graph confirms the high degree of price correlation found by the economist in the Department of Commerce.

The USDA has noted that price correlation can be determined from a visual inspection of a graph plotting HFCS and sugar prices. A graph showing such monthly prices from 1975 through 1983 led the USDA to note

"[t]he strong correlation between refined sugar prices and HFCS prices." [31] The same graph also led the USDA to conclude that "when the price of sugar increases, the demand to substitute HFCS for sugar also increases," [32] which is the essence of cross-elasticity of demand.

Other evidence also establishes that HFCS prices are highly correlated with sugar prices. As early as 1977, the USDA concluded that "high frutose corn syrup prices are expected to continue to be determined by the price of sugar, since HFCS and sugar are close substitutes . . . ." [33] The same point was expressed again in 1980, when the USDA concluded that "an important factor affecting HFCS prices is the price of sugar, because HFCS and sugar are close substitutes in many foods and beverage uses." [34] Similarly, in 1981 the USDA observed that "corn sweetner prices have weakened significantly since last fall, following sharp declines in competitive sugar prices.[35]

The court finds there is significant price correlation between HFCS and sugar.

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[31] DDX 3 at p. 30; Def. Att. 21.

[32] *Ibid.*

[33] Little & Gray, USDA Annual Outlook at p. 7 (Nov. 14, 1977) (Def. Att. 23).

[34] USDA Sugar and Sweetener Report, SSR Vol. 5, No. 5 at 19-20 (May 1980) (DDX 11; Def. Att. 26). *See also* Barry & Grey, U.S. Outlook for Sweeteners and Tropical Products, at p. 4 (Nov. 18, 1980) (DDX 6; Def. Att. 27) ("An important factor affecting corn sweetener prices is the price of sugar . . . particularly for HFCS which is a close substitute for sugar . . . . Corn sweetener prices have been spurred by the upward thrust of sugar prices this year. . .").

[35] Sugar and Sweetener Outlook and Situation Report, USDA Econ. Research Service, at p. 19 (Sept. 1981) (DDX 14; Def. Att. 28).

Based on the tests of interchangeability, cross-elasticity and price correlation, as applied above, the court finds the relevant product market is not limited to HFCS. It includes sucrose made from sugarcane and sugarbeets. (This conclusion is confirmed in numerous past statements of Government officials and agencies that regulate or analyze the production and consumption of sweeteners in the United States. These statements span more than a decade, and repeatedly corroborate that HFCS and sugar compete in the sweetener market.[36] The affidavit of John R. Block, Secretary of Agriculture from January 1981 until 1986, also confirms the significance of "competition of HFCS (or 'corn sugar') with other, established sweeteners, especially sucrose . . . ." (Def. Att. 1 at 3).[37])

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[36] *E.g.*, Memorandum from Secretary of Agriculture Bergland to President Carter at pp. 3-5 (Feb. 6, 1979) (DDX 70; Def. Att. 3); USDA Memorandum for Assistant Secretary of Agriculture William Lesher (September 24, 1981 at p. 2) (DDX 79; Def. Att. 42); USDA Internal Memorandum at p. 1 (June 9, 1981) (DDX 76; Def. Att. 46); Script of TV Program prepared by USDA for use in 1982 at pp. 4-5 (Def. Att. 48); Business Conditions Report, U.S. Dept. of Commerce at p. 13 (Apr. 16, 1982) (DDX 58; Def. Att. 4); Dept. of Commerce Memorandum for Assistant Secretary of Commerce at p. 1 (1985) (DDX 100; Def. Att. 49; Ives Dep. at 103-08); GAO Report to Congress, "Sugar and Other Sweeteners: An Industry Assessment" at 88, 90 (Feb. 26, 1979) (Def. Att. 33); GAO Report to Congress, "U.S. Sweetener/Sugar Issues and Concerns" at pp. 7, 9, 28-29 (Nov. 15, 1984) (Def. Att. 16); Press Release, Office of United States Trade Representative in Executive Office of the President, pp. 1-2 (Dec. 15, 1986) (Def. Supp. Att. 12, Ex. B).

[37] The Government objected to the Block Affidavit on the ground that it consists of "incompetent" evidence for lack of personal knowledge. The court disagrees because the affidavit is based on Mr. Block's personal knowledge and experience as Secretary of Agriculture. However, the court has sustained the Government's objection to a statement of Magistrate Longstaff regarding the sweetener market based on his *in camera* review of several Government documents withheld from discovery under a claim of executive privilege. The Magistrate's statement is not admissible evidence and

"Submarket" Legal Tests Applied to the Record

The Government urges that its concept of the relevant market should nonetheless be accepted as a "submarket." The court finds, however, that there are no economically significant factors in terms of anticompetitive effect that establish an HFCS submarket.

The gist of the Government's submarket concept is that the displacement of sugar by HFCS is now "mature," because such displacement is "virtually complete" and "irreversible." [38] According to the Government's theory, the principal reason for this allegedly irreversible displacement is the "price disparity" between HFCS and sugar which "is attributable in large measure to the operation of the Government Sugar Program," and "there is no reason to believe that the Sugar Program will be allowed to disappear so that sucrose prices will decrease to a level competitive with HFCS." Gov't. Memo. at 22-23 (Jan. 9, 1987).

There are serious deficiencies, both legal and factual, in the Government's submarket argument. For example, even if it is assumed that the current U.S. Sugar Program will be continued indefinitely in the future and will

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does not constitute a judicial finding that is relevant to the summary judgment matter; accordingly, this statement has not been considered.

[38] *See* Plaintiff's Statement of Material Facts As To Which There Is No Genuine Dispute at ¶ 7, 8; Gov't Memo. at 3, 25 (Jan. 9, 1987). The record includes other statements using the word "Mature" in a different sense from the Government's "virtually complete" and "irreversible" argument. In these statements, "mature" refers to the competitive balance or equilibrium expected to develop after the major soft drink companies authorized full interchangeability of HFCS and sugar in late 1984. As the USDA noted, this would mean that "further incursions by HFCS would likely be gradual." (DDX 4 at 5). However, this does not signify that competition has ceased or that HFCS's initial competitive success is "irreversible."

perpetuate the prevailing 10% to 30% price differential between sugar and HFCS, the Government's cross-motion still fails as a matter of law. As indicated in the discussion of the applicable legal criteria, *Cellophane* and its progeny have established that price differentials, even substantial ones, are insufficient as a matter of law to overcome other undisputed evidence showing interchangeability, cross-elasticity and price correlation between substitute products. As the Eight Circuit observed, the argument for excluding a product from the relevant market because of its consistently higher price or because of its recognition as being the "cream" of the market "is not convincing in view of the overall record of competitive interchangeability" of the products in question." [39]

The Government's cross-motion also fails because of its reliance upon a prediction that the U.S. Sugar Program "will remain" in effect for an indefinite period of time in the future and that the historical price difference of 10% to 30% between HFCS and sugar will thereby be maintained. On the record before the Court, the following evidentiary facts are undisputed and contradict the Government's contention:

(1) The legislation establishing the current U.S. Sugar Program will automatically expire by its own terms in 1990.

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[39] *Acme Precision Products, Inc. v. American Alloys Corp.*, 484 F.2d 1237, 1244 (8th Cir. 1973). In the *Cellophane* case, where all wrapping materials were placed in the same relevant market, the Court relied in part on the fact that "wrapping is a relatively small proportion of the entire cost of the article." 351 U.S. at 401. In this case, during oral argument on the summary judgment motions, the court inquired about the cost of sugar in a bottle of Coca Cola or Pepsi Cola, and counsel for the Government stated that "a good ballpark figure" would be 10% for the cost of sugar. Tr. at 38. If true, a 10%-30% discount on HFCS would translate into only a 1% to 3% reduction of total cost and an even smaller percentage of selling price.

(2) The Administration has already advanced legislative proposals to make "fundamental changes" in the current U.S. Sugar Program before it expires automatically, and such changes (if adopted) "would lower the price support [from 18 cents] . . . to 12 cents a pound [and] . . . prices paid by domestic sugar consumers will fall as a result."

(3) In the past, as legislation on sugar was about to expire, there has been much uncertainty concerning the future of the U.S. Sugar Program due in part to the fact "that within the short span of only 10 years since 1974, a wide range of policy options have been adopted for U.S. Sugar." [40]

Because the present U.S. Sugar Program is due to expire and could be modified or terminated before its expiration, it cannot be assumed the program will remain in effect indefinitely. The undisputed evidence shows that there is substantial uncertainty concerning the future of the U.S. Sugar Program.

The Government also argues that "the irreversible nature of this process [HFCS's displacement of sugar] is evidenced by virtually all the statements of sucrose purchasers submitted by plaintiff . . . ." (Gov't Memo at 24-25). To support this proposed finding of irreversibility,

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[40] The listed items of evidence on the future of the U.S. Sugar Program are based on undisputed statements and publications in the record: Annual Report of Council of Economic Advisers at 172-73 (Jan. 1987) (Def. Supp. Att. 12, Ex. C); USDA News Release at 3 (Dec. 15, 1986) (Def. Supp. Att. 12, Ex. A); Agriculture in the Future, USDA Bull. No. 484 at 53 (Dec. 1984) (DDX 31; Def. Att. 13); Outlook for Sugar and Other Sweeteners at 5-6 (USDA Jan. 29, 1981) (Def. Att. 17); Bary, Outlook for U.S. Sugar in a Multi-sweetener Market at 1 (USDA Apr. 26, 1984) (DDX 39; Def. Att. 22).

the Government relies on a few affidavits from selected sweetener users who confirmed that they have switched to HFCS because of its lower price and who further say that they would not switch back to sugar as long as the existing price differential (or even a smaller differential) allows them to achieve a lower cost in making their products.[41]

These statements are predicated on the assumed continuation of the U.S. Sugar Program which, as noted above, is in substantial doubt. Moreover, the record before the court shows there are probably thousands of sweetener users—over 100 customers of a single sweetener broker in Wisconsin alone. Pelzman Dep. at 18-19. The Government's evidence covers just a handful of users. Some of the affidavits submitted by the Government included only generalized statements confirming that the particular user had in fact purchased HFCS at prices below the prices available for sugar.[42] Several of the same users, whose generalized affidavits had been previously submitted by the Government, were thereafter interviewed by defendants, and these users then provided supplemental affidavits that contradicted the Government's "irreversible" characterization of their prior affidavits.

By way of example, Mr. Turnquist of the Coca-Cola organization, whose affidavit had been submitted by the

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[41] An illustrative example is the affidavit of Harold W. Conklin, whose company now uses HFCS in its salad dressings and has not "since 1982 . . . considered returning to the use of sugar as a sweetener . . . ." Pl. Att. 5 at ¶ 4.

[42] *See* Turnquist Aff. at ¶ 5 (Pl. Att. 14) ("From November 1984 . . . [to] June 1986, Coca-Cola USA did not purchase sucrose for its own use in lieu of 55-HFCS . . . because 55-HFCS was offered for sale to Coca-Cola USA at prices that were significantly below the prices available for sucrose"). *See also* Knecht Aff. At ¶ 4 (Pl. Att. 9) (Pepsi bottler switched to HFCS on November 6, 1984 and "[s]ince that date [with only minor exceptions] . . . has not purchased sucrose for use in the soft drinks it produces" as a result of lower HFCS prices as compared to sugar).

Government, provided a supplemental affidavit in which he stated that his company's "plans never assumed or contemplated that the switch from sucrose to HFCS would be one way only or irreversible." Mr. Turnquist further stated in his supplemental affidavit that, in order to facilitate a switch back from HFCS to sugar, "Coca-Cola has maintained its dry bulk sugar handling facilities [and] . . . has maintained the sweetener ingredient designation 'high fructose and/or sucrose' on the labels of all of its nutritive soft drink products." Even more important is the fact that Coca-Cola actually switched back to using 100% sugar in its West Coast plants for a three to four month period in 1984. Prior to this switch back, Coca-Cola had been using 100% HFCS as the sweetener for all soft drinks other than its Coke-brand items, which were then sweetened with HFCS as 75% of the total sweetener.[43]

The supplemental affidavits of other large users of sweeteners likewise indicated that their decisions to use HFCS are not irreversible. For example, Mr. Knecht, whose company is one of the largest Pepsi Cola bottlers in the United States, confirmed that during the last 18 months, he has seriously threatened to buy sugar in place of HFCS as part of his negotiating strategy to persuade HFCS sellers to lower their prices. Mr. Knecht regarded that as "a serious threat" and even "contacted sucrose suppliers and began discussions concerning sucrose availability and price." Mr. Knecht further confirmed that after this "threat to switch to sucrose, HFCS prices of-

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[43] Turnquist Supp. Aff., Def. Supp. Att. 14 at ¶ 5-10. Mr. Turnquist further stated that "sucrose manufacturers continued to solicit Coca-Cola's soft drink sweetener business even after HFCS 55 was approved at the 100 percent level . . . and after this time, Coca-Cola made numerous inquiries as to potential availability of sucrose for purchase by Coca-Cola in place of HFCS." *Id.* at ¶ 10.

fered to [his company] . . . were reduced and [his company] . . . continued to purchase HFCS." [44]

In the face of these undisputed statements by two of the country's largest sweetener buyers (both of whom were on the Government's list of trial witnesses), the court cannot conclude that the Government has submitted sufficient probative evidence to show that the switch from sugar to HFCS is "irreversible." [45]

The Government's "mature" and "irreversible" argument is further predicated on the position that whenever a new and cheaper product is introduced into a market and partially displaces an older interchangeable product, the newly entering product has created a separate market unto itself unless the older product is able promptly to oust the new product from the market. This is a dubious position.[46] The Government recognizes that HFCS had to compete with sugar when HFCS first entered the market about 15 years ago, but the Government now asserts that such competition became "virtually complete" at some undisclosed recent date. However, at the time the lease

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[44] Knecht Supp. Aff. ¶ 5-6; Def. Supp. Att. 2.

[45] The record also includes undisputed evidence of other instances where an initial switch to HFCS from sugar was not considered to be irreversible. *See, e.g.*, Nagle Dep. at 23 (large canning company recently completed an experimental pack of canned fruits sweetened with 100% sugar); Bunker Dep. at 76-77, 92 (large sugar company was engaged in negotiations in the latter part of 1986 to sell sugar to Pepsi Cola pursuant to a "long term supply commitment" and expected "the discussions will be reopened" soon).

[46] In *Cellophane*, the Court rejected the government's cellophane-only market in part because it would create "monopolists" in each of the other substitute wrapping materials, whereupon the Court asked rhetorically: "is each a monopoly?" 351 U.S. at 394. Moreover, the Court expressly noted that there may be instances where a "cheaper product can drive out the more expensive," *id.* at 396, but there was no suggestion that the scope of the relevant product market would change while such competitive displacement is ongoing.

was executed in 1982, large soft drink companies were still using substantial quantities of sugar (50% minimum) in their premium cola-flavored drinks and refused to allow full substitution of HFCS until the end of 1984.[47]

Although HFCS has made substantial inroads against sugar in the soft drink applications, sucrose is still in competition with it. The Government's contrary argument is analogous to the contention that was rejected in *American Crystal Sugar Company v. Cuban-American Sugar Company*, 259 F.2d 524 (2d Cir. 1958). There, the contention was made that beet sugar did not compete with cane sugar in sofe drink applications because of a price difference and because most soft drink companies preferred cane sugar. The court rejected the contention:

> Although there was some evidence that soft drink manufacturers are reluctant to use beet sugar, almost all the testimony supported the trial court's finding of substantially complete functional interchangeability, under the tests laid down in the *duPont* [*Cellophane*] case . . . . We conclude that in so far as there is in the market existence of separate "buyer demands" for cane and beet sugar, it betokens not an absence of competition between cane and beet but only that for the time being as to certain customers one or the other form of the product for one reason or another has forged ahead in the competitive race.

Id. at 530. The same point applies here. Although HFCS has forged ahead of sugar in the competitive race at many soft drink companies, other evidence in the record confirms that the competitive struggle between HFCS and sugar is far from over.

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[47] *E.g.*, Turnquist Aff. at ¶ 3, Def. Supp. Att. 14.

The Government's "virtually complete" and "irreversible" argument is also predicated on the assumption that existing technology for HFCS will not change in the future. Thus far, HFCS has been handicapped by being available only in liquid form, whereas sugar is available either as a dry crystalline product or in liquid form. However, the record includes evidence showing that one of the largest manufacturers of HFCS has already developed corn-derived fructose in a crystalline form, and it is being offered to users under the tradename CRYSTAR. Part of this evidence, which was submitted by the Government, consists of a promotional announcement by the A. E. Staley Manufacturing Company that "CRYSTAR is ideally suited for many dry sweetener products, including: powdered beverage mixes, cereal coatings, reduced-calorie foods and beverages, confections, sports drinks, baked goods [and] frozen foods." [48]

The USDA has recognized on several occasions that new technology permitting HFCS manufacturers to offer a crystalline form of fructose will further intensify the competition between HFCS and sugar.[49] This point was re-emphasized in a recent USDA report:

> Staley . . . announced in June that it will begin producing a crystalline (not syrup) fructose sweetener in the spring of 1987. Currently, all but a small percentage of high fructose sweeteners are in syrup form. Although "Crystar" will be displacing sugar, it will be blended with sugar for most applications

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[48] *See* Pl. Supp. Att. 1. The record also includes additional evidence in an affidavit of Wayne S. Martin, the Vice President and General Manager, Sweeteners of the A. E. Staley Company. Def. Supp. Att. 10.

[49] *E.g.*, Agriculture in the Future: An Outlook for the 1980's and Beyond, USDA Bull. 484, at 54 (Dec. 1984) (DDX 31; Def. Att. 13); Sugar: Background for 1985 Farm Legislation, USDA Bull. 478, at 30 (Sept. 1984) (DDX 3; Def. Att. 21).

because the two products together are sweeter than either product alone.

> Crystar's targeted markets are dry mixes, cereal products, and confections. . . . The sweetener will be produced at the Company's Lafayette, Indiana plant, with an initial production capacity of 100 million pounds, which could mean a displacement of between 65,000 and 85,000 tons of sugar. . . .
>
> The product, said to be 10 to 80 percent sweeter than sugar . . . will be priced between 35 and 60 cents a pound wholesale, compared with a July price of around 23.5 cents for refined beet sugar in the Midwest. Initially, Crystar would probably compete most directly with beet sugar, because of the concentration of the cereal and bakery and confectionary industries in the North Central region [where beet sugar is used].[50]

It is also significant that, apart from "distinct prices," there are at least two other submarket tests that tend to negate the Government's HFCS submarket. As to the "distinct customers" test, the evidence shows that instead of distinct customers, suppliers of HFCS and sugar sell to the same categories of food and beverage processors. As to the "specialized vendors" test, the record shows that sweetener distributors and brokers are specialists that handle both sugar and HFCS.

For all of the above reasons, the summary judgment record will not legally support the Government's contention that HFCS alone is the relevant product market.

It is for the reasons stated above that the court entered its order on May 29, 1987, which denied plaintiff's cross-motion for summary judgment, granted defendants' mo-

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[50] Sugar and Sweetner Situation and Outlook Report, USDA Econ. Research Service, at p. 17 (Sept. 1986) (Def. Att. 31).

tion for summary judgment, and ordered that plaintiff's complaint be dismissed.

DATED this 6th day of August, 1987.

/s/ Harold D. Vietor
HAROLD D. VIETOR
Chief Judge
Southern District of Iowa

APPENDIX C

UNITED STATES COURT OF APPEALS
FOR THE EIGHTH CIRCUIT

No. 87-2343SI

UNITED STATES OF AMERICA,
Appellant,

v.

ARCHER-DANIELS-MIDLAND CO. and
NABISCO BRANDS, INC.,
Appellees.

Appeal from the United States District Court
for the Southern District of Iowa

JUDGMENT

[Filed Dec. 15, 1988]

This appeal from the United States District Court was submitted on the record of the district court, briefs of the parties and was argued by counsel.

After consideration it is ordered and adjudged that the judgment of the district court be reversed and the cause remanded to the district court for proceedings consistent with the opinion of this Court.

December 15, 1988

A True Copy.

ATTEST:

/s/ Robert D. St. Vrain
Clerk, U.S. Court of Appeals
Eighth Circuit

APPENDIX D

UNITED STATES COURT OF APPEALS
FOR THE EIGHTH CIRCUIT

No. 87-2343SI

UNITED STATES OF AMERICA,
Appellant,

vs.

ARCHER-DANIELS-MIDLAND COMPANY, *et al,*
Appellees.

Appeal from the United States District Court
for the Southern District of Iowa

Appellees' petition for rehearing en banc has been considered by the Court and is denied.

Petition for rehearing by the panel is also denied.

March 8, 1989

Order entered at the Direction of the Court:

/s/ Robert D. St. Vrain
Clerk, U. S. Court of Appeals
Eighth Circuit